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Remedial Design/ Remedial Action Work Plan

411 North Aerojet Avenue Property
Azusa/Irwindale Study Area

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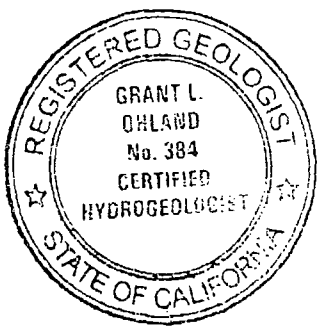

REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN

411 North Aerojet Avenue Property
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TABLE OF CONTENTS

TABLE OF CONTENTS
(Continued)

FIGURES

APPENDICES

REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN

411 North Aerojet Avenue Property
Azusa/Irwindale Study Area

1.0 INTRODUCTION

Geomatrix Consultants, Inc. (Geomatrix), on behalf of Aerojet-General Corporation (Aerojet), has prepared this Remedial Design/Remedial Action Work Plan (Work Plan) for the property at 411 North Aerojet Avenue as requested in a letter received from the Los Angeles Regional Water Quality Control Board (LARWQCB) on October 3, 2007 pursuant to Cleanup & Abatement Order (CAO) 99-073R. This Work Plan outlines the remedial design and remedial actions to be implemented at the 411 North Aerojet Avenue property (Property), the Property containing former Building 4, to address perchlorate observed in the upper 20 feet of unsaturated soil. The current property owner, Mortech Manufacturing, Inc. (Mortech), intends to expand former Building 4, hereafter referred to as the Mortech Building to allow expansion of their manufacturing facilities.

The scope of this Work Plan was discussed in concept during a meeting with LARWQCB, Aerojet, and Mortech representatives on September 26, 2007 and consists of: 1) a summary of site conditions including an overview of the distribution of perchlorate in soils on the Property, 2) a summary of remedial alternatives and the selection of a preferred remedial alternative, 3) a description of the scope of the proposed remedial action, 4) other considerations such as permitting and waste management, and 5) a proposed schedule for recommended remedial actions.

2.0 BACKGROUND

The Property is located within the former Azusa Irwindale Study Area (AISA) in the City of Azusa, California (Figure 1) which comprises approximately 125 acres within the cities of Azusa and Irwindale in the north-central portion of the San Gabriel Valley, Los Angeles County, California. The AISA lies at the base of the foothills of the San Gabriel Mountains near the mouth of Fish Canyon, approximately 1.5 miles east of the San Gabriel River/Santa Fe Flood Control Basin, immediately east of Irwindale Avenue, and just south of the Interstate 210 Freeway (I-210). Properties currently within the AISA include office, light industrial, and research and development buildings, with concrete and/or asphalt roadways and parking areas.

The vast majority of the Property is covered with asphalt or concrete surfaces, and various buildings. Only small areas of decorative landscaping within the developed area comprise the exposed earth surfaces. The north boundary of the AISA encompasses portions of the former, partially backfilled gravel pit known as the Kincaid Pit, which is now crossed by I-210. The south-central boundary of the AISA is the Azusa Land Reclamation Company gravel pit and landfill. The following sections describe the specific site conditions, distribution of perchlorate in soils, development of remedial action objectives, development of remedial action alternatives, and selection of a remedial action alternative for the Property.

2.1 SITE CONDITIONS

The Property comprises approximately 2.2 acres and is primarily covered with asphalt parking areas and a single concrete building (Mortech Building) covering approximately 21,000 square feet. Small areas of decorative landscaping adjacent to the building or within the parking areas have exposed earth surfaces containing trees, shrubs, or lawn turf. Most of these landscape areas are irrigated by sprinkler systems. The Property is underlain by unconsolidated alluvium composed of poorly sorted sand and gravel with the gravel fraction containing cobbles and boulders as large as two feet in diameter or more. Underground utilities on the Property include electrical supply lines, telecommunication lines, natural gas line, water supply pipelines, sanitary sewers, and storm sewers. These underground utilities are described in more detail in Section 4.

2.2 DISTRIBUTION OF PERCHLORATE IN SOILS

The distribution of perchlorate in soil within the AISA and at the Property have been characterized by drilling of approximately 100 soil borings and the analysis of more than 900 soil samples since perchlorate-related investigations commenced within the AISA in 2000. Since that time, Aerojet has submitted a number of technical reports to the LARWQCB describing the horizontal and vertical extent of perchlorate in soils within the AISA. The most comprehensive of these technical reports is titled *Further Assessment of Soils Containing Residual Perchlorate* (Further Assessment Report) dated April 18, 2006 (Geomatrix, 2006). Supplemental findings regarding the lateral and vertical extent of perchlorate within the AISA were documented in two addenda to the Further Assessment Report and submitted to the LARWQCB on May 31 and November 30, 2007 (Geomatrix, 2007a; Geomatrix, 2007b). The findings in the Further Assessment Report and addenda form the basis for the current understanding of the distribution of perchlorate in soils on the Property. These findings are illustrated in plan and profile views on Figures 2 through 4. Based on these findings, the

distribution of elevated concentrations of perchlorate (greater than 500 micrograms per kilogram [µg/kg]) on the Property is summarized as follows:

- A broad area of elevated perchlorate concentrations (greater than 500 µg/kg) exists beneath the existing Mortech Building and extends to the north and south of the building (Figures 2 and 5). The majority of the elevated perchlorate concentrations occur in the upper 20 feet of soil as shown on Cross Sections B-B' and C-C' (Figures 3 and 4). Detectable perchlorate concentrations extend to a depth of 250 feet in the area immediately south of the Mortech Building.

- A second area of elevated perchlorate concentration occurs near the southern boundary of the Property. This area extends south on to the adjacent property owned by Northrop Grumman Corporation. The majority of the elevated perchlorate concentrations in this area occur in the upper 20 feet of soil as shown on Cross Section C-C' (Figure 4).

- Three additional areas of elevated perchlorate concentration occur along the western boundary of the Property and extend west on to the adjacent property owned by Proficiency SGV, LLC (Figures 2 and 5). The majority of the elevated perchlorate concentrations in this area also occur in the upper 20 feet of soil.

2.3 Development of Remedial Action Objectives

The development of remedial action objectives for the Property considers 1) human health risks associated with exposures to soils containing perchlorate and 2) potential impacts to underlying groundwater. Human health risks associated with exposure to soils containing perchlorate were evaluated in a technical report submitted to the LARWQCB on January 11, 2008 (Geomatrix, 2008). This human health risk evaluation outlined the development of risk-based screening levels (RBSLs) for the AISA. The RBSLs for perchlorate were considered for potentially exposed human receptors consistent with current and future land uses in accordance with the current zoning of the property for commercial/industrial use. The RBSLs developed for potential industrial worker and construction worker exposure to perchlorate are 711 and 214 milligrams per kilogram (mg/kg), respectively. These RBSLs are 2 to 8 times higher than the maximum observed concentration of perchlorate of 86 mg/kg. Consequently, the RBSLs confirm previous conclusions regarding the lack of significant human health risks associated with perchlorate in soils within in the AISA.

Considerable effort has been placed into evaluating potential impacts to groundwater from perchlorate in soils within the AISA. The development of a Soil Screening Level (SSL) that is protective of underlying groundwater was described in the Further Assessment Report submitted to the LARWQCB on April 18, 2006. The SSL was developed for the upper 20 feet

of soil assuming that future land use might permit the removal of buildings or pavement materials thus allowing the infiltration of precipitation into subsurface soils resulting in the potential mobilization of perchlorate downward toward groundwater. After discussion with the LARWQCB, the point of compliance for assessing potential impacts to groundwater was moved from the downgradient boundary of the AISA to a location immediately downgradient of the known area of elevated perchlorate concentrations. This change in the point of compliance resulted in a decrease in the SSL from 1,000 µg/kg to 500 µg/kg. The development of an SSL for only upper 20 feet of vadose zone is considered appropriate because: 1) the highest concentrations of residual perchlorate are observed in the upper 20 feet of the vadose zone within the Study Area, and 2) 20 feet is considered the maximum practical depth for the remediation of soils containing perchlorate through excavation and disposal or ex-situ treatment. As stated in correspondence with the LARWQCB, no practical removal or treatment alternative exists for perchlorate concentrations below depths of 20 feet. In addition, the injection of fluids necessary for alternative treatment technologies poses an increased threat to groundwater quality due to the high probability of flushing perchlorate to underlying groundwater. At present, Aerojet and its technical consultants are unaware of any technically viable alternatives for dealing with low concentrations of perchlorate in soils below 20 feet.

Considering both the protection of human health and groundwater described above, the remedial action objective for perchlorate in the upper 20 feet of soil at the Property has been set at 500 µg/kg based on the SSL described above. This SSL was developed for situations where soils containing perchlorate were uncapped and exposed to the infiltration of precipitation or surface water. Given that the Property will be capped by the existing Mortech Building, a planned building expansion, and paved parking areas, storage yards, and loading docks, the use of 500 µg/kg as a remedial action objective is considered more than adequate to be protective of groundwater. This is consistent with previous correspondence with the LARWQCB indicating that the maintenance of a relatively impermeable cap (including buildings) over areas of perchlorate impacted soils is the most appropriate and effective means of eliminating potential future threats to underlying groundwater.

2.4 SUMMARY OF REMEDIAL ACTION ALTERNATIVES

A number of remedial action alternatives have been evaluated for the remediation of perchlorate impacted soils within the AISA as described in the Remedial Action Plan (RAP) and addenda (Geomatrix, 2002a, Geomatrix, 2002b, Geomatrix, 2003). The RAP developed remedial action alternatives that were considered practicable and implementable relative to site

conditions at four Areas of Concern within the AISA. The remedial action alternatives, listed below, were evaluated based on effectiveness, implementability, and cost.

Alternative A – No Action
Alternative B – Institutional Controls
Alternative C – Excavation and Offsite Soil Disposal
Alternative D – Excavation and Onsite Soil Bioremediation
Alternative E – In Situ Bioremediation

Based on the evaluation of these remedial action alternatives, Alternative B, Institutional Controls was recommended as the remedial action alternative. The recommendation to implement Alternative B was based on technical analyses that demonstrated that no further impacts to groundwater would occur so long as these areas remained capped by pavement or buildings. The LARWQCB indicated that they approved the implementation of Alternative B but required additional remedial actions to remediate perchlorate impacted soils within the AISA. As a result, they approved the implementation of Alternative D, Excavation and Onsite Soil Bioremediation in a letter to Aerojet dated September 15, 2003. The remedial action alternative described in this Work Plan is specific to the Property and has been developed to address LARWQCB requirements while allowing Mortech to move forward with their building expansion plans.

2.5 SELECTION OF REMEDIAL ACTION ALTERNATIVE FOR PROPERTY

The selected remedial action alternative for the Property is soil excavation and on-site bioremediation combined with institutional controls. Soil excavation and on-site bioremediation will target soils shallower than 20 feet in depth above the remedial action objective of 500 µg/kg. This remedial action alternative was developed in consideration of the LARWQCB approval of Alternative D, Excavation and Onsite Soil Bioremediation as recommended in the RAP and the building expansion needs of Mortech. The selected remedial alternative recognizes that the remediation of perchlorate impacted soils beneath the existing Mortech Building is impracticable without demolition of the building and no practical removal or treatment alternative exists for perchlorate concentrations below depths of 20 feet. Despite these constraints, the excavation of perchlorate impacted soils to depths of 20 feet is anticipated to remediate the majority of the perchlorate mass on the Property.

3.0 PROPOSED REMEDIAL ACTION

As discussed above, excavation of all soils with concentrations of perchlorate greater than 500 µg/kg to a maximum depth of 20 feet, followed by on-site biotreatment and reuse has been

selected as the remedial action for the Property. Figure 5 shows the areas proposed to be excavated and treated on-site. Most areas of the Property with soils containing perchlorate concentrations equal to or greater than 500 µg/kg are targeted for excavation. However, in some areas access constraints associated with the existing Mortech Building and easements along property boundaries preclude soil excavation at this time. Easement boundaries along the western and northern property boundaries are shown on Figure 5 and described in the Covenants, Conditions, and Restrictions for 1300 Optical Drive and 500 North Aerojet Avenue properties (Appendix A). Similar CC&R's are currently being researched for the parcels to the east and south of the Property. As a result of access constraints associated with the Mortech Building and recorded easements, only those areas with perchlorate concentrations above 500 µg/kg that are outside the building and not within recorded easements on the subject Property are targeted for remedial action in this Work Plan. Areas of perchlorate concentration above 500 µg/kg that partially extend into easement areas along the northern property boundary may be excavated should necessary site access approvals be obtained from property owners and the easement holders.

Remedial actions are expected to be performed in two phases due to various project and site constraints discussed later in this Work Plan. Soil excavation, including confirmation sampling, soil handling, water management, on-site biotreatment, backfill, site preparation, and considerations associated with new and existing utilities, permitting, site control, health and safety, and waste management are discussed in more detail in the sections below. The proposed work sequence and schedule are presented in Section 6.0 of this Work Plan.

3.1 SOIL EXCAVATION

Areas for proposed soil excavation areas were selected based on the interpreted extent of perchlorate concentrations exceeding 500 µg/kg as shown on Figure 5. Based on these areas designated for excavation, it has been estimated that approximately 26,500 cubic yards (cy) of soil will be removed and treated during the project, with approximately 15,800 cy expected to be removed from the 411 North Aerojet property. It is anticipated that the remaining 10,700 cy of soil will be excavated from the property to the south in order to eliminate the need for shoring the excavations at the property boundary and, to the extent possible, complete the removal of adjacent soils containing perchlorate above 500 ug/kg in the subject area. Based on the extent of perchlorate concentrations exceeding 500 µg/kg and various logistical considerations such as the location of underground utilities, the existence of numerous easements, and the need for continued site access and parking by Mortech and adjacent property owners, the areas of proposed soil excavation were divided into two phases. This

phasing is intended to minimize business interruptions while allowing manageable volumes of soil for excavation and treatment. Proposed soil volumes from each excavation phase are shown on Figure 5. These volumes are approximate and may vary depending on confirmation sampling results as discussed below. These volumes also do not account for additional material excavated for ramping and excavation safety purposes, as necessary. Asphalt and other pavement materials will be removed, segregated, and otherwise managed as described in Section 5.0.

Impacted soil within 20 feet of existing structures is expected to be excavated allowing a one to one slope from the building foundation to a distance of approximately 20 feet from the structure. Geotechnical test pits and soil testing will be performed to obtain additional information regarding the nature and geotechnical properties of the soils near the existing building foundation and to determine the appropriate setback of the excavation walls to protect the existing foundation. The results of these tests may cause an increase or decrease in the amount of soil that can be excavated near the building foundations while maintaining adequate foundation protection. Removal of material from beneath the building foundation is technically impractical as previously discussed in the September 26, 2007 meeting with LARWQCB personnel. In addition, the presence of large cobbles and boulders preclude the installation of sheet piles and the drilling or driving of other geotechnical safeguards near the foundation to allow for additional excavation.

3.1.1 Excavation Methods

Soil excavation will be conducted using appropriately sized heavy equipment designed for soil excavation including front-end loaders, track mounted excavators, and backhoes. Excavations will be conducted in accordance with the California Code of Regulations Title 8, Article 6, Sections 1540 and 1541 of the California Occupational Safety and Health Regulations (Cal/OSHA). It is anticipated that most of the excavations will be ramped to allow equipment and personnel to enter the excavations. In areas where the size of the excavation or the presence of underground utilities or existing structures precludes this approach, soil removal will be performed without the placement of equipment in the excavation. Temporary excavation support systems will be used as necessary to provide sidewall stability and to protect foundations and utilities expected to remain in place.

Excavated soil will be stockpiled near the excavation or dynamically loaded into trucks as possible to prevent additional handling of impacted materials. All soils that are stockpiled will be placed on polyethylene sheeting to contain and separate impacted soils from pavement and

clean areas. Material excavated solely for the purpose of ramping an excavation or providing sloped sidewalls for excavation safety shall be segregated separately, stockpiled and sampled for perchlorate concentrations as discussed in Section 3.4.7.

Excavations will be advanced to the estimated lateral extent of perchlorate concentrations greater than 500 µg/kg have been reached. At this point field screening of the soil and/or confirmation samples will be taken as discussed below to confirm that soil containing perchlorate concentrations greater than 500 µg/kg has been removed. The initial depth of the excavations will also be based on the estimated vertical extent of perchlorate as shown on the subsurface cross-sections presented on Figures 3 and 4. If field screening or confirmation sample results show that additional impacted soil exists beyond excavated limits, the excavation will be advanced until additional field screening or confirmation samples indicate that soil containing perchlorate concentrations greater than 500 µg/kg have been removed. This process will be repeated laterally and vertically until soils with concentrations of perchlorate greater than 500 µg/kg have been removed. Excavations will not progress beyond a depth of 20 feet, regardless of remaining perchlorate concentrations. In addition, soil excavation will not proceed beyond the property boundary of 411 North Aerojet Avenue. Soil excavation within easements will only occur if access approvals are obtained from the easement holders. In instances where perchlorate concentrations exceed 500 µg/kg at the property boundary, the LARWQCB will be notified and a geotextile fabric will be placed at the lateral extent of the excavation wall to provide separation between the remaining impacted soil and clean backfill. Confirmation samples will be taken from the bottom and sides of excavations even where remediation goals are not met in order to document remaining conditions. Excavation limits and confirmation sample locations will be recorded using a Global Positioning System (GPS) unit with an accuracy of +/-3 feet horizontally. Confirmation sample depths will be measured from ground surface.

3.1.2 Field Screening

Field screening of soil samples for perchlorate is expected to be used to assist in determining if the 500 ug/kg limits of excavation have been reached. Excavation will proceed to the lateral limits shown in Figure 5, followed by field screening of excavation sidewalls and bottoms. Once field screening results indicate that excavation limits have been reached, confirmation samples will be taken and analyzed as indicated in Section 3.1.3. Field screening or rapid turnaround laboratory testing will assist in expediting the excavation process by allowing for quicker field decisions to be made regarding the need for additional excavation, rather than waiting several days for confirmation sampling results.

There are two commercially available quantitative methods available for field screening for perchlorate. Both of these methods measure perchlorate in a liquid matrix and therefore require the extraction of perchlorate from the soil matrix. The preferred method utilizes an ion selective electrode (ISE) specific to the perchlorate ion whereas the other method is colorimetric perchlorate measurement technique (Thorne, 2004). Each of these methods will require pre-testing with the site soil to determine if matrix interferences will inhibit reliability of the screening tools. Split samples will be collected and analyzed at an independent laboratory accredited through the California Environmental Laboratory Accreditation Program (CA-ELAP) in order to establish the reliability of the method as a screening tool and to correlate results. In the event that field screening is not feasible for the site soil matrix, rapid turnaround laboratory analyses will be utilized to guide the lateral and vertical extent of soil excavations.

3.1.3 Confirmation Sampling

Once field screening indicates that required material has been removed, or a property boundary is reached, confirmation samples will be taken to confirm that the remedial goals have been met. Confirmation samples will be collected throughout each excavation area, including sidewalls and bottom, on an approximate 25-foot by 25-foot grid. Figure 6 shows an example confirmation sampling grid for a hypothetical excavation area. Sidewall samples will be collected at three distinct depths, 2.5 feet (near surface), 10 feet (midpoint) and 20 feet, or the sidewall bottom if the excavation is less than 20 feet. Confirmation samples will be collected, preserved and shipped in accordance with standard procedures used for site characterization efforts conducted within the AISA.

Confirmation samples will be analyzed by an independent CA-ELAP laboratory for perchlorate using modified EPA Method 314.0 for soils with a reporting limit of 40 µg/kg. A reporting limit of 40 µg/kg is considered adequate given the remedial action objective of 500 µg/kg and previous soil characterization efforts within the AISA indicate that lateral and vertical extent of perchlorate was not appreciably different when soil samples were analyzed using EPA Method 6850 with reporting limits of 6 µg/kg as compared to soil samples analyzed using EPA Method 314.0 with a reporting limit of 40 µg/kg.

A moving average of adjacent sidewall confirmation sample results will be calculated at each sidewall sampling location (every twenty-five feet), using the adjacent six to nine samples covering a fifty foot segment, depending on sample location, and compared to the 500 µg/kg remedial action objective to determine if further lateral excavation is required. A sample

location where the calculated average value is less than or equal to 500 µg/kg will not require additional excavation. A sample location where the calculated average value is greater than the 500 µg/kg remedial action objective will require additional excavation at locations of elevated concentrations until the average is at or below 500 µg/kg. For example, a sidewall sample above 500 µg/kg collected at a depth of 10 feet will be averaged with the eight surrounding confirmation samples, two samples on either side of the sample at the 10 foot depth, plus the three samples above and below that sample at the 2.5 foot and the 20 foot depths. Alternately, a confirmation sample located at the 2.5 foot or the 20 foot depths will be averaged with the two samples on either side of that sample at the same depth plus the three samples at the depth immediately above or below that sample. Any individual samples greater than twice the 500 µg/kg remedial action objective, though, will be required to be excavated regardless of the calculated average to prevent leaving perchlorate hot spots in place. Sidewalls where excavation limits are restricted by the property boundary, building foundation, or other subsurface restriction will not be included in these calculations.

3.1.4 Dust Control

Dust is expected to be generated during all phases of site work. Dust control will be accomplished by sprinkling water, repeated at such intervals as necessary to keep the project and surrounding areas free from dust which could cause a hazard or nuisance to site personnel and the public. The application of water will be closely monitored to prevent excessive application and the possible leaching of perchlorate into subsurface soils.

3.1.5 Equipment Decontamination

Excavation, soil processing and other soil handling equipment which comes into contact with impacted soil will be decontaminated by first brushing gross soil accumulation from equipment at the soil processing area for treatment. Equipment will then be steam cleaned or washed with high pressure water and allowed to dry in a decontamination area before handling imported or treated soils to prevent contamination of clean materials. The decontamination area will be constructed in order to contain decontamination water and prevent the release of water containing perchlorate to the environment. Decontamination water will be managed as discussed in Section 3.3.3. Decontamination of equipment will also be performed prior to demobilization at the end of the project.

To prevent the tracking of materials from one area to another and to prevent over-the-road transport vehicles, if used, from picking up impacted soil in tire treads, anti-tracking aprons will be installed at all gated entrances to project areas. Anti-tracking aprons will consist of the

placement of poly sheeting overlain by several inches of clean 2-inch crushed stone. Contaminated materials will also be brushed from these vehicles while on the anti-tracking apron, prior to exiting the Property.

3.2 SOIL HANDLING

Excavated soils will be stockpiled or dynamically loaded into trucks for transport to the soil processing area. All stockpiled soil will be placed on and covered by polyethylene sheeting to prevent material from being exposed to storm water. Based on investigations to date, it is expected that up to 20 to 30 percent of the excavated soil will be larger than 1 foot in diameter (boulders). Material used in the biotreatment process cannot be larger than 2 inches and, therefore, will require crushing and screening prior to treatment. If crushing large material or biotreatment becomes infeasible, large material may be loaded into trucks or bins and hauled off-site for management at an approved facility as discussed in Section 5.0. Alternatively, material may be rinsed to remove perchlorate contamination as discussed in Section 3.2.2, followed by reuse on-site or transported off-site and managed as discussed in Section 5.0.

3.2.1 Soil Segregation and Screening

Excavated material will be crushed and screened to produce material of 2-inch diameter and smaller for the biotreatment process. Material larger than 24 inches in diameter will be segregated and broken down by a hydraulic rock breaker before being processed by a jaw crusher (Powerscreen XA400 or similar). Crushed material will be moved by conveyor from the jaw crusher to a cone crusher for further reduction in size to two inches in diameter or less. Material will then be moved by conveyor from the cone crusher to a two-inch screener (Powerscreen Chieftain 2100 or similar). Rejected material will be passed back to the cone crusher to further reduce the material size. Material that passes through the screen will be staged for amending and loading into the biotreatment containers as discussed below in Section 3.4. Large material that can not be feasibly crushed and treated in the biotreatment containers may be rinsed to remove perchlorate as necessary as described in Section 3.2.2 and/or transported off-site and managed as discussed in Section 5.0.

3.2.2 Soil Rinsing

As an alternative to breaking up rock larger than 24 inches in diameter, large material may instead be segregated and rinsed to remove perchlorate as necessary. Material rinsing will be performed in a designated area designed to contain rinsate and prevent intrusion into the subsurface or discharge off-site. Materials will be pressure washed and/or soaked in water, as necessary, to remove perchlorate from the surface of the material. Water samples obtained by

running water over the material will be collected to confirm the removal of perchlorate from the material. Samples of rinsed materials will be collected at an approximate frequency of one sample per 20 cy of material washed, or at a minimum of one sample per day that rinsing activities occur.

3.3 WATER MANAGEMENT

Because perchlorate is extremely water-soluble, water management is an important aspect of the project to prevent impacted water from infiltrating into the subsurface and potentially mobilizing residual perchlorate. Soil rinse water, stormwater and decontamination water are the only water sources expected during this project and the means for controlling and managing this water will be discussed individually below.

3.3.1 Soil Rinse Water

If soil rinsing is used to remove residual perchlorate from boulders, water used for rinsing will be contained within the soil rinsing area. A contained area will be constructed to allow water to freely drain from the boulders and flow to and collect in a sump area. Water will then be pumped to a holding tank and used for conditioning the soil prior to placing in the biotreatment cells. Excess rinse water will be containerized and transported off-site to an approved facility and properly managed in accordance with all applicable regulations.

3.3.2 Stormwater

As described in Section 6.0, it is anticipated that most of excavation work described in this Work Plan will occur in the summer months when rainfall events are typically infrequent in the vicinity of the Property. However, precautions will be implemented to prevent stormwater from entering an open excavation or falling upon uncovered soil thus reducing the potential for the mobilization of perchlorate in the subsurface. As a result of these considerations, stormwater management is a critical element of this project. Soil excavations will be performed as quickly as possible in order to minimize the amount of time open excavations are present. Diversions will be placed around excavations to prevent inflow of stormwater from outside of the excavation.

Excavation bottoms will be graded so that they are sloped to a lined sump area in the bottom of the excavation where stormwater can collect and, if necessary, be quickly removed with a submersible sump pump. If a storm is expected while an excavation is still open, polyethylene sheeting will be placed on the sides and the bottom of the entire excavation and layered so that water will flow to the sump area. Water pumped from the excavation will be collected in a

holding tank and used in the biotreatment process or properly managed in accordance with applicable regulations.

Once excavations are backfilled, stormwater diversions will remain in place around the excavations until paving or the placement of foundations is complete to prevent stormwater infiltrating into the subsurface. Polyethylene sheeting will be placed over backfilled areas to prevent rainfall from falling on the backfill areas and infiltrating into subsurface soils. Paving will be performed as soon as feasible after backfilling.

3.3.3 Decontamination Water

Decontamination water collected from the decontamination area will be containerized and used in the biotreatment process or transported off-site to an approved facility.

3.4 BIOTREATMENT

Ex-situ biotreatment is recommended for the excavated perchlorate contaminated soils at the Property. Ex-situ biotreatment for the destruction of perchlorate has been successfully demonstrated for soil contamination. Advantages of the process include the ability to cost effectively remediate large volumes of soil, the potential to reduce secondary contaminants simultaneously and the elimination of a waste stream. The proposed ex-situ biotreatment plan is modeled after the success of a recent case study at another site near Los Angeles, California, which demonstrated rapid destruction of perchlorate from excavated soils, with a median destruction rate of approximately 200 micrograms per kilogram per day (µg/kg/day). The process involves amending the excavated soil with water, an organic carbon source, and nutrients prior to placing the soil in Ag-Bag™ EcoPod containment bags or other biotreatment cells constructed to produce anoxic conditions and encourage destruction of perchlorate using indigenous (naturally occurring in site soils) microorganisms.

3.4.1 Treatment Method

The proposed biotreatment method removes perchlorate from the soil by a microbial transformation of the chemical. Perchlorate-degrading microorganisms have been found to be widespread in the subsurface environment and have been found at many perchlorate-contaminated sites (Coates *et al.*, 1999: Waller *et al.*, 2004). Microbial activity is stimulated by the addition of an organic carbon food source (electron donor), moisture and nutrients, primarily nitrogen and phosphorous, if not already present in the contaminated soils. Under anoxic conditions perchlorate degrading microbes naturally present in the soil consume organic

carbon and utilize perchlorate as a terminal electron acceptor (perchlorate reduction), resulting in the conversion of perchlorate to chlorate, chloride, water and carbon dioxide.

Soils are first excavated, crushed and screened to produce a homogeneous matrix that can be mixed with soil amendments. A relatively even distribution of food source, nutrient and moisture amendments are required for consistent remediation conditions and results. To achieve an even distribution of amendments it is necessary to crush and screen material to a size of two inches in diameter or less as described in Section 3.2.

Processed excavated material is then amended, mixed and loaded into the biotreatment cells as described in Section 3.4.2. During full scale operation in the case study mentioned above, the perchlorate removal goals were typically met within two weeks. However, 65 days or greater were required in treatment units that did not contain sufficient nutrients or moisture content. Due to lower perchlorate concentrations present at the Property, each biotreatment cell is expected to reach removal goals within approximately one month. Once confirmation samples have been analyzed as discussed in Section 3.4.7, biotreatment cells will be opened and the contents spread to allow excess soil moisture to evaporate, if necessary, prior to reusing soil as backfill.

3.4.2 Soil Amendments and Loading

Processed excavated material (crushed and screened soil and rock) will be loaded into a pug mill (Cedarapids model 828 with 300 tons/hr capacity or similar) for mixing with soil amendments to produce a homogeneous mixture. Proposed amendments include glycerin, water and diammonium phosphate (DAP) as described below. Previous bench scale studies have demonstrated success in microbial perchlorate reduction with other organic carbon substrates such as acetate, high fructose corn syrup, molasses, canola oil, and isopropanol (Waller, 2004; Choi, 2005). Glycerin is a sugar alcohol that is a colorless, odorless, viscous liquid with a low toxicity. In the previously mentioned case study, glycerin was selected due to the low cost, chemical stability, and low toxicity which reduced safety and regulatory concerns associated with possible releases to the environment. The use of glycerin also provides advantages over other carbon sources in that no air quality permit is required and no nuisance odors will be generated. DAP provides a water soluble source for both nitrogen and phosphorous nutrients which are important for proper operation of the microbial process. Glycerin and DAP will be added as diluted water based solutions; based on the previous case study, expected diluted stock solutions will be 90 percent glycerin and 140 grams per liter (g/L) DAP. Target glycerin and DAP concentrations in the biotreatment containers are expected to

be approximately 500 milligrams glycerin per kilogram of soil (mg/kg) and 50 milligrams-nitrogen per kilogram of soil (mg-N/kg), respectively. Expected target soil moisture concentration will be 15 to 17 percent. Soil moisture of less than 14 percent has been shown to inhibit biological perchlorate reduction, while soil moisture greater than 17 percent has created difficult to manage saturated soils (mud). A treatability study, as discussed in further detail in Section 3.4.3, with site specific soil will be conducted prior to excavation and full scale treatment to help determine optimum amendment concentrations.

Amendments will be added to the pug mill using an automatic metering system to provide even distribution. After mixing in the pug mill, amended soil will immediately be loaded into the biotreatment cells to prevent evaporation of amended water. If Ag-Bag™ EcoPods (or similar) are used, they will be loaded via a specialized loader (CT-10SL by Ag-Bag or similar) that extrudes and sets down the filled tube as the extruder moves along the intended tube location path. The anticipated size of the Ag-Bag™ EcoPods will be 10 feet in diameter by 200 feet long, which hold approximately 375 cubic yards of soil. Other sizes may be utilized in order to maximize available space in the treatment area. Alternatively, biotreatment cells may be constructed and filled with the mixed and amended soil utilizing a front-end loader. As the biotreatment cells are filled, they will be manually covered with impermeable polyethylene sheeting secured to keep in moisture and prevent oxygen diffusion into the soil matrix.

3.4.3 Treatability Studies

Treatability studies using site soil samples will be performed prior to beginning large scale excavation activities to confirm the presence of indigenous microorganisms and to determine their potential for perchlorate reduction. In addition, treatability studies will help determine optimum target concentration levels for the carbon food source, nutrients and moisture content and to see if any microbial inhibitors are present in the soil. Site soil samples will be analyzed for naturally occurring soil moisture, nitrogen and phosphorous as a baseline. Additional soil samples will be amended with varying levels of organic carbon and nutrients and allowed to incubate in sealed air-tight containers. Samples will be taken at predetermined time intervals and analyzed for perchlorate. Results will be evaluated to determine potential for perchlorate biodegradation, appropriate carbon and nutrient dose concentrations, required moisture addition level, and anticipated time for complete perchlorate reduction during the biotreatment process. Information gained in the treatability studies will ensure efficient use of resources and time in the field.

The treatabilty study will also include time to evaluate the effectiveness of the proposed colorimetric and ISE field screening methods. Site soil samples will be analyzed with these methods prior to commencing excavation to determine their utility as a field tool and ability to achieve the desired detection limits of perchlorate in the site soil. If one of the methods proves to be an effective screening method, correlations between screening results and analytical results will be developed during this time as well.

3.4.4 Treatment Area

The proposed soil treatment and staging area is a partially paved vacant property adjacent to and south of the Property. Use of this vacant property for soil staging and treatment is subject to approval from the property owner, Northrop Grumman. Figure 7 illustrates a site layout based on estimated space requirements for soil staging, soil preparation, and laydown area for the biotreatment cells. This site layout should be considered preliminary and subject to change as the result of changing space requirements and the requests from the property owner.

3.4.5 Treatment Goal

The treatment goal for the biotreatment process is 40 µg/kg, consistent with the reporting limit for EPA Method 314.0 to be used for the analysis of post-treatment confirmation samples as described in Section 3.4.7 below. Post-treatment confirmation sampling results indicating perchlorate concentrations equal to or below 40 µg/kg of perchlorate will be considered suitable for reuse on-site as backfill. Backfill and reuse of treated soil will be discussed further in Section 3.5.

3.4.6 Monitoring

Biotreatment progress will be monitored by collecting and analyzing samples from the biotreatment containers for perchlorate via modified EPA Method 314.0 at progressing time intervals. Grab samples will be initially collected after amending and mixing, but prior to loading each biotreatment cell. Initial grab samples will be collected at the rate of one sample per every 250 cy soil. Subsequent monitoring grab samples will be collected weekly from approximately 25 percent of the biotreatment cells on a rotating basis. Monitoring will continue with grab samples collected on a weekly basis or as necessary until perchlorate concentrations are at or below the treatment goal level.

3.4.7 Post-Treatment Confirmation Samples

Post treatment confirmation samples will be collected to confirm that perchlorate concentrations in treated soil meet the treatment goal of 40 µg/kg. Confirmation samples will

be collected as composite samples, with each confirmation sample composited from grab samples collected every 25 feet of length of the biotreatment cells. One composite sample will be collected for approximately every 250 cy of treated soil resulting in two composite samples for each 200 foot long biotreatment cell.

Confirmation samples will be analyzed for perchlorate by modified EPA Method 314.0 for soils with a reporting limit of 40 µg/kg. This reporting limit may vary depending on matrix interference effects and resultant influences on laboratory detection limits. Samples will be analyzed by independent CA-ELAP laboratory. Results from the confirmation samples will be evaluated relative to the treatment goal of 40 µg/kg to confirm that the biotreatment process is complete for each biotreatment cell.

Composite samples shall be collected from stockpiles consisting of ramping and excavation safety materials using a minimum of four discrete grab samples, with one composite sample collected for every 250 cy of stockpiled soil. Composite samples will be analyzed by an independent CA-ELAP laboratory for perchlorate using modified EPA Method 314.0 for soils with a reporting limit of 40 µg/kg. Stockpiled soil with less than 40 µg/kg of perchlorate shall be allowed to be used as backfill in the excavation; otherwise, soil will be included with impacted material and treated in the biotreatment process.

3.5 BACKFILL AND SITE PREPARATION

Once confirmation sampling of the treated soil is complete and the soil is deemed acceptable for reuse, excavations will be backfilled with this material. If necessary, material will be imported from an approved source to account for any volume differences. The sections below discuss the backfill materials to be used on-site, placement and compaction of backfill materials, and final preparation and surface cover for excavated areas.

3.5.1 Backfill Materials

Excavations will be backfilled with soil material from the biotreatment process whenever possible. In certain situations where immediate backfilling is necessary to support existing structures or underground utilities, new fill material may be imported from an off-site source. Backfill will be placed and compacted to within twelve inches of the surface. A minimum of eight inches of Class 2 aggregate base course, as specified in the CALTRANS Standard Specifications, will be placed and compacted above this backfill material. If existing aggregate base course layer is thicker than eight inches, aggregate base course layer thickness will be matched. Backfilled areas outside the proposed Mortech building expansion will be finished

with pavement that is consistent with the proposed future use of the area in consultation with the property owner. The subgrade area of the foundation for the Mortech building expansion will be completed as described in Section 3.5.3.

All imported material should be free of organic material, debris, and other deleterious substances, and should not contain fragments greater than 3 inches in maximum dimension. In addition, imported fill material should have an Expansion Index (EI) less than 40. All imported fill material and aggregate base course will be sampled at an approximate frequency of one sample per every 1,500 cy of material imported, with a minimum of two samples per source. Samples will be obtained from the fill source and analyzed by an independent CA-ELAP laboratory for perchlorate using modified EPA Method 314.0 for soils.

3.5.2 Compaction

Modified proctor tests will be performed in accordance with ASTM International Test Method D1557 on imported fill and on treated soil at a frequency of at least one test per every 1,500 cy placed as backfill in order to determine the maximum dry density and optimum moisture content characteristics.

Additional testing may be required for treated soil if soils excavated from different areas of the Property are determined to vary in nature. Backfill materials will be moisture-conditioned to within 3 percent of the optimum moisture content and placed in lifts not to exceed 8 inches prior to compaction. Lifts will be compacted to not less than 95 percent relative compaction.

3.5.3 Building Subgrade

Proposed building foundation areas will be similarly backfilled with treated or imported material and covered in order to protect against stormwater infiltrating into unprotected excavations.

3.5.4 Pavement

All backfilled areas will be paved or covered as soon as possible to prevent infiltration of precipitation or surface water runoff. A minimum of four inches of Type A asphalt concrete, placed as a two inch binder course and a two inch finish course, will be placed over the compacted aggregate. If existing asphalt thickness is greater than four inches, new asphalt layers will match the existing thickness. Pavement thickness and site usage will be discussed with the property owners and evaluated prior to placement.

4.0 OTHER REMEDIAL ACTION-RELATED ACTIVITIES

In addition to the various elements of the proposed remedial action described above, a number of related activities will be necessary to implement the remedial actions described in this Work Plan. These related activities are described in the following sections and include:

- Maintenance, relocation, or replacement of subsurface utilities
- Health and safety considerations
- Site access control
- Permitting

4.1 SUBSURFACE UTILITIES

Subsurface utilities, both existing and proposed, are an important consideration for the work at this Property. Existing subsurface utilities, based on available drawing files provided by the previous property owner, are shown on Figure 8. Existing utilities are required to be kept in service in order to allow the Property owner and neighboring businesses to remain in operation during the Work, or shut down for short limited periods coordinated with property owners. The following utilities are expected to be encountered based on the information currently available:

- **Natural gas supply lines.** Natural gas piping is typically small diameter piping and is present to the north and west of the existing Mortech Building.

- **Electrical and telecommunications systems.** Electric lines, including a large transformer, are located to the north, west and south of the building. Telecommunication lines are expected to the north and possibly west of the existing Mortech Building. Both electric and telecommunications lines are typically located in plastic conduit and are located to the north of the existing Mortech Building

- **Pressurized water supply systems** include domestic water supply, industrial water supply, and fire protection systems. Water lines are constructed typically of cast or ductile iron, steel, or polyvinyl chloride (PVC) plastic construction. Water lines are present on both the east and west sides of the existing Mortech Building.

- **Landscape irrigation systems.** These systems are typically constructed of lightweight plastic piping materials and are installed in shallow trenches. Irrigation lines present in excavation areas will be turned off and drained during work.

Irrigation lines encountered in excavation areas will be moved if possible during the work or will be replaced after the excavations have been backfilled. Irrigation lines are present to the east, north and west of the existing Mortech Building.

- **Sanitary Sewers** for domestic waste conveyance. Given the age of the sanitary sewer lines on the Property, it is anticipated that the sewer lines are constructed of vitrified clay pipe (VCP). New sewer lines, if required, are expected to be constructed of PVC. A large sanitary sewer main exists to the west of the existing Mortech Building.

- **Storm Sewers** for drainage of surface water runoff from storm events. The storm sewer lines are typically constructed of corrugated metal pipe (CMP) or reinforced concrete pipe (RCP) and can be large diameter at the point of discharge. It is unclear if storm sewers exist in the anticipated excavation areas.

- **Other Industrial Gas Supply Lines.** Three industrial gas lines exist to the west of the existing Mortech Building and are believed to be abandoned. These lines will be removed from excavation areas and capped and abandoned in place at excavation limits, or replaced after the completion of excavation as desired by the property owner.

Existing utility pipeline sizes, materials and conditions are unknown at this time. Potholing will be performed during the first phase of work in order to determine this information and to assist in determining if support of existing utilities, replacement of utilities or relocation of utilities is required. Coordination of support, replacement or relocation with local utility companies or agencies will be required. Work in these areas and any service interruptions or relocations will be closely coordinated with the local utilities and affected property owners.

In addition to the replacement and relocation of existing subsurface utilities, Aerojet will assist Mortech and their building designer in the design and installation of new water bearing utilities for the proposed building in order to ensure utilities are installed according to the requirements of the LARWQCB. All water bearing utilities will be concrete encased, or otherwise double contained, to prevent water from these utilities infiltrating into remaining impacted subsurface soils in the event of a leak.

4.2 HEALTH AND SAFETY CONSIDERATIONS

All work will be in accordance with the existing AISA Site Specific Health and Safety Plan. An addendum will be prepared to address the specific site activities of this project and to meet the requirements of 29 CFR 1910.120. The field work level of effort proposed in this work plan assumes that modified Level D personal protection will be sufficient for all field work as there is not a significant inhalation or contact risk associated with perchlorate. The objective of the Health and Safety Plan will be to protect the health and safety of on-site personnel and to limit exposure of the public to hazardous substances, pollutants, or contaminants.

The Health and Safety Plan will include the following:

- Brief Site Description
- Site Safety Hazards
- Chemical Compounds of Concern
- Project Personnel
- Site Training/Medical Surveillance Requirements
- Personnel Protective Equipment (PPE) Requirements
- Air Monitoring Requirements
- Decontamination Procedures
- Work Zones
- Investigation Derived Waste Disposal/Handling
- Emergency Response
- Special Operations Safety Requirements
- Emergency Resources
- Generic First Aid

Total dust emissions will be monitored during excavation and soil handling activities using personal dust monitors on excavation equipment and other soil handling equipment to ensure ambient air quality standards for nuisance dust are not exceeded. Additional air quality measurements are not expected to be necessary.

4.3 SITE ACCESS CONTROL

The proposed staging and treatment area is presently a controlled access area with all entrance points typically locked. Temporary site security fencing will be installed around the active excavation areas and work zones and tied into the existing security fencing as necessary to prevent access to the public. Fencing will include double wide swing gates to allow access for personnel and vehicles. Vehicular traffic is expected to utilize the access gate located on the west side of the Northrop Grumman property on Third Street.

4.4 PERMITTING AND ACCESS AGREEMENTS

A number of permits and access agreements will be necessary for the implementation of the activities described in this Work Plan. As described in previous correspondence with the LARWQCB, the access agreement will need to be revised with Mortech to address the proposed remedial actions. In addition, access agreements with selected adjacent property owners will also be necessary. A preliminary investigation into probable permit requirements for the activities described in this Work Plan resulted in the identification of a number of permit requirements to ensure that the work is performed in accordance with applicable local, state and federal regulations. A summary of this preliminary investigation of potential permit requirements is provided below:

- A Waste Discharge Requirement (WDR) is likely to be required by the LARWQCB to set forth treatment and testing requirements prior to treatment and reuse of treated material on-site.

- It is unlikely any permits will be required from the South Coast Air Quality Management District since no significant air pollutants are anticipated. Standard requirements reducing nuisance dust creation will be employed as discussed in the dust control section above to reduce to a minimum nuisance dust creation and fugitive emissions from the Property.

- A Notice of Intent (NOI) will need to be filed for stormwater discharges to obtain coverage under the General Permit For Storm Water Discharges Associated With Construction Activity, Water Quality Order 99-08-DWQ.

- An excavation permit will be required by the California Division of Occupational Safety and Health (Cal/OSHA) since it is expected that equipment and personnel will be required to enter the excavation areas.

- A grading permit or other local permit is likely to be required by the City of Azusa due to the large amount of soil to be excavated and treated on-site. In addition, the City of Azusa and utility companies will need to be consulted to assess the need for permits or identify other requirements associated with the support and relocation of underground utilities.

5.0 WASTE MANAGEMENT

All project wastes, including soil rinse and decontamination water, excess and large diameter soil, general construction debris, asphalt, decontamination materials, used poly sheeting and other treatment related wastes, will be transported to an approved off-site facility. All project wastes will be managed in accordance with applicable local, state and federal regulations.

6.0 WORK SEQUENCE AND SCHEDULE

The activities described in this Work Plan is expected to be performed in three phases over approximately three construction seasons, corresponding to the three general areas of excavation as shown in Figure 5. The first phase of work is expected to consist of the excavation and treatment of 21,000 cy of soil in the area directly south of the existing Mortech Building. Phase II is expected to consist of the excavation and treatment of an additional 5,500 cy of soil north of the Mortech Building. Performing the work over two years is necessary due to several complicating factors at the Property. First, the Property and surrounding properties are active businesses which are required to remain in operation during the work. Therefore, work will need to be constrained to limited areas of the Property in order to allow normal business operations to continue; therefore, excavation on two sides of the building in one season is considered impractical. In addition, Mortech plans to construct a building expansion over part of the Phase I excavation area. Mortech needs to maintain normal business operations during the construction of the building expansion which will require that the rest of the Property be available for delivery truck access as well as materials storage for current business operations and building construction. As a result, soil excavation beyond those areas proposed in Phase I will not be conducted until the building expansion is complete. Finally, the large number and complexity of utilities and easements located within the proposed excavation areas will require close coordination with local utility companies or agencies, Mortech, and the surrounding property owners to minimize service interruptions while maintaining vehicular access and employee parking.

In addition to site access considerations described above, the project schedule attempts to avoid areas with significant subsurface utilities or other complexities during the first phase of soil excavation and treatment activities. This is intended to minimize the time necessary for troubleshooting in areas with numerous subsurface utilities thus reducing the potential for service interruptions to property owners. The initial phase of soil excavation is proposed in the area south of the existing Mortech Building. This area has no known subsurface utilities and will therefore allow for the excavation and treatment processes to be tested and refined prior to beginning work in areas with subsurface utilities. In addition, bench scale testing of the biotreatment process and correlation of field screening and laboratory methods for perchlorate quantitation will be performed prior to or during the first phase of field work. A proposed schedule for the two phases of the project is presented in Figures 9Aand 9B.

7.0 REFERENCES

Choi, H. 2005, Reduction of Perchlorate in a Fixed Biofilm Process: Effects of Perchlorate Ion Concentration, Flow Recirculation, and Competing Electron Acceptors. University of Colorado at Boulder, Ph.D. Dissertation. AAT 3196475, pp 204.

Coates, J.D., U. Michaelidou, R.A. Bruce, S.M. O'Conner, J.N. Crespi & L.A. Achenbach, 1999, Ubiquity and diversity of dissimilatory (per)chlorate-reducing bacteria. Applied and Environmental Microbiology, pp 65, 5234-5241.

Geomatrix, 2002a, Report - Remedial Action Plan for Soils Containing Residual Perchlorate, Azusa/Irwindale Study Area, Azusa, California, June.

Geomatrix, 2002b, Report - Addendum, Remedial Action Plan for Soils Containing Residual Perchlorate, Azusa/Irwindale Study Area, Azusa, California, December 30.

Geomatrix, 2003, Letter - 2nd Addendum, Remedial Action Plan for Soils Containing Residual Perchlorate, Azusa/Irwindale Study Area, Azusa, California, October.

Geomatrix, 2006, Further Assessment of Soils Containing Residual Perchlorate, Azusa/Irwindale Study Area, Azusa and Irwindale, California, April 18.

Geomatrix, 2007a, Addendum – Further Assessment of Soils Containing Residual Perchlorate, Azusa/Irwindale Study Area, Azusa and Irwindale, California, May 31.

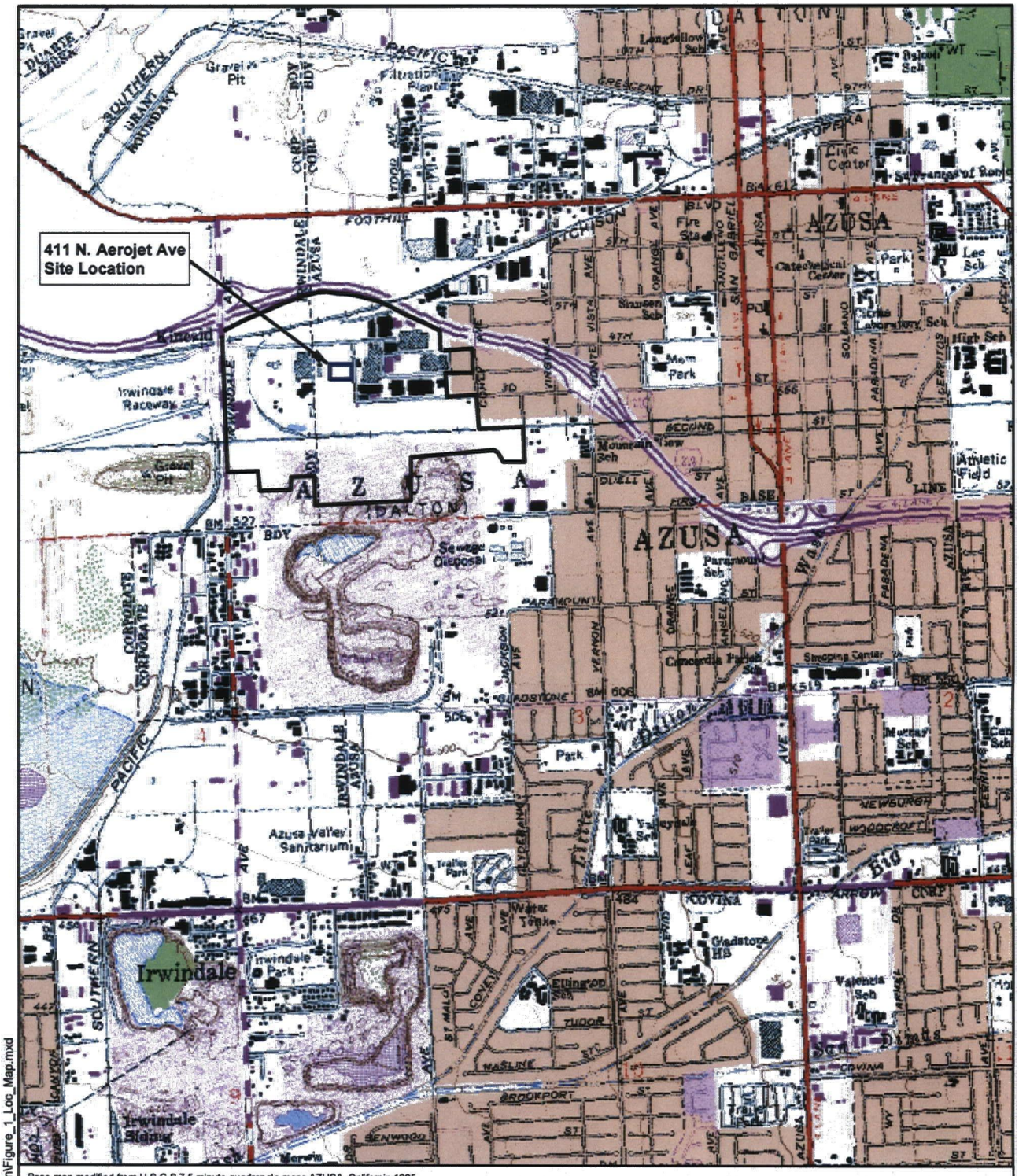
Geomatrix, 2007b, Second Addendum – Further Assessment of Soils Containing Residual Perchlorate, Azusa/Irwindale Study Area, Azusa and Irwindale, California, November 30.

Geomatrix, 2008, Screening Level Risk Assessment for Perchlorate in Soil, Azusa/Irwindale Study Area, Azusa and Irwindale, California, January 11 (In-Progress).

Thorne, P.G., 2004, Field Screening Method for Perchlorate in Water and Soil. US Army Corps of Engineers, ERDC/CRREL TR-04-8, pp 30.

Waller, A.S., E.E. Cox, & E.A. Edwards, 2004, Perchlorate-reducing microorganisms isolated from contaminated sites. Environmental Microbiology, pp 6, 517-527.

FIGURES



Base map modified from U.S.G.S 7.5 minute quadrangle maps AZUSA, California 1995, and BALDWIN PARK, California 1966; Phto Revised 1981.

EXPLANATION

EXPANDED BOUNDARY OF AZUSA/IRWINDALE STUDY AREA (AISA)

N

0 500 1,000 2,000 Feet

K:\Projects\Aerojet_7190\GIS_maps\AISA\RA_Workplan\Figure_1_Loc_Map.mxd

SITE LOCATION MAP

411 N. AEROJET AVENUE PROPERTY
AZUSA/IRWINDALE STUDY AREA
Azusa and Irwindale, California

By: CBT	Date: 1/8/08	Project No. 7190.006
Geomatrix		Figure 1

IRWINDALE

AZUSA

Former Grinding Station (former Aerojet Buildings 6/6A)

Avenida Padilla (formerly Optical Dr.)

3rd Street

Aerojet Avenue (formmer Central Ave.)

411 N. AEROJET AVENUE PROPERTY BOUNDARY

DRAGONIS INVESTMENTS BUILDING

MORTECH BUILDING

PROFICIENCY SGV LLC BUILDING

PROFICIENCY SGV LLC BUILDING

PROFICIENCY SGV LLC BUILDING

Former Solid Propellant Mixing Station (former Aerojet Buildings 8/8A)

Former Solid Propellant Mixing Station (former Aerojet Buildings 9/9B)

Parking Area

Parking

Former Buildings 15/15a

Tanks

Bldg. 1 A

Bldg. 1

PSZB-88 PSZB-88A PSZB-89 PSZB-90 PSZB-91 PSZB-92 PSZB-93

PSZB-50 PSZB-51 / 51A PSZB-74 PSZB-75 PSZB-84

PSZB-22 PSZB-05 PSZB-21 PSZB-06 PSZB-36 PSZB-37 PSZB-38 PSZB-39 PSZB-40 PSZB-09 PSZB-27 PSZB-27A PSZB-28 PSZB-41 PSZB-12 PSZB-29 PSZB-42 PSZB-43 PSZB-30 PSZB-44 PSZB-31 PSZB-49 PSZB-32 PSZB-47 PSZB-46 PSZB-33 PSZB-34 PSZB-35 PSZB-25 PSZB-26 PSZB-20 PSZB-19 PSZB-68 PSZB-69 PSZB-70 PSZB-81 PSZB-82 PSZB-83 PSZB-87 PSZB-86 PSZB-85 PSZB-77 PSZB-78 PSZB-79 PSZB-80 PSZB-76 PSZB-71 PSZB-72 PSZB-73 PSZB-61 PSZB-62 PSZB-63 PSZB-64 PSZB-65 PSZB-66 PSZB-67 PSZB-45 PSZB-60 PSZB-54 PSZB-55 PSZB-56 PSZB-57 PSZB-58 PSZB-48 PSZB-50

PIZB-01 PIZB-02 PIZB-8 PIZB-9 PIZB-04 PIZB-05 PIZB-06

PDZB-20 PDZB-21 PDZB-10 PDZB-16 PDZB-06

SVMW-11 SVMW-13 SVMW-33 SVMW-37 SVMW-34 SVMW-32 SVMW-18 SVMW-20

SZB-02 SZB-14 SZB-12 SZB-13 SZB-05 SZB-06

MW-04

B4-1 B4-2 B4-3 B4-4

PDZB-11 PSZB-07

A A' B B' C C'

Basemap modified from a Harding-ESE figure, revised 4/01, and a map provided by PerkinElmer, Optoelectronics, Inc., dated July, 2003. 2005, 2006 2007 boring locations based on Cal Vada surveys of April 2005, February-March 2006, April 2007, and November 2007.

THREE-DEMENSIONAL PERCHLORATE DISTRIBUTION IN SOIL VIEWED FROM THE SOUTHWEST

Plot Date: 01/10/08 - 10:58am, Plotted by: lumy
Drawing Path: I:\Project\7190\CAD\411 N Aerojet Drive\, Drawing Name: MODIFIED Perchlorate_11-07_ 0-20ft.dwg

Explanation

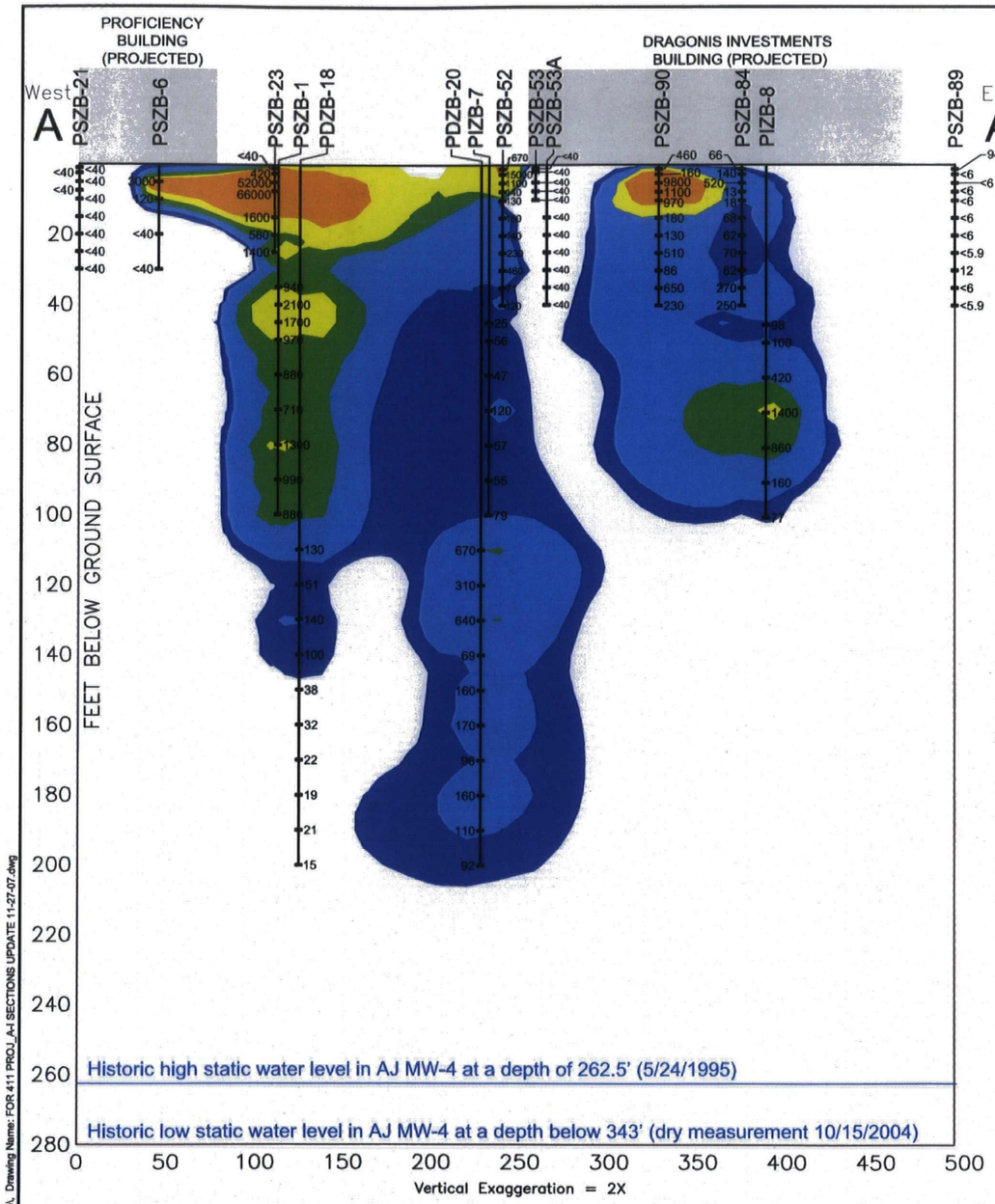
- B4-4 — Near surface (2'-10') boring (Geomatrix, October/November 2007)
- PSZB-93 — Shallow zone boring (Geomatrix, October/November 2007)
- PIZB-9 — Intermediate zone boring (Geomatrix, October/November 2007)
- PDZB-21 — Deep zone boring (Geomatrix, October/November 2007)
- PSZB-87 — Near surface (5'-10') boring (Geomatrix, March/April 2007)
- PSZB-84 — Shallow zone (30'-40') boring (Geomatrix, March/April 2007)
- PIZB-7 — Intermediate zone (100') boring (Geomatrix, April 2007)
- PDZB-19 — Deep zone (250') boring (Geomatrix, March 2007)
- PSZB-73 — Shallow zone boring (Geomatrix, February/March 2006)
- PIZB-06 — Intermediate zone boring (Geomatrix, February/March 2006)
- PSZB-49 — Shallow zone boring (March/April 2005)
- PSZB-20 — Shallow zone boring (Phase II - Harding ESE, April 2001)
- PDZB-16 — Deep zone boring (Phase II - Harding ESE, April 2001)
- PSZB-12 — Shallow zone boring (Phase I - HLA, October 2000)
- PDZB-06 — Deep zone boring (Phase I - HLA, October 2000)
- SZB-20 — Shallow zone boring (HLA, 1994)
- SVMW-37 — Shallow vapor monitoring well (HLA, 1994)
- MW-04 — Monitoring well
- Current building
- 9 — Former building
- Chain link fence
- Parcel boundary
- Irwindale-Azusa boundary
- A — A' Line of cross section
- 40 — Perchlorate isoconcentration contour (40 µg/kg)
- 100 — Perchlorate isoconcentration contour (100 µg/kg)
- 500 — Perchlorate isoconcentration contour (500 µg/kg)
- 1000 — Perchlorate isoconcentration contour (1000 µg/kg)
- 5000 — Perchlorate isoconcentration contour (5000 µg/kg)

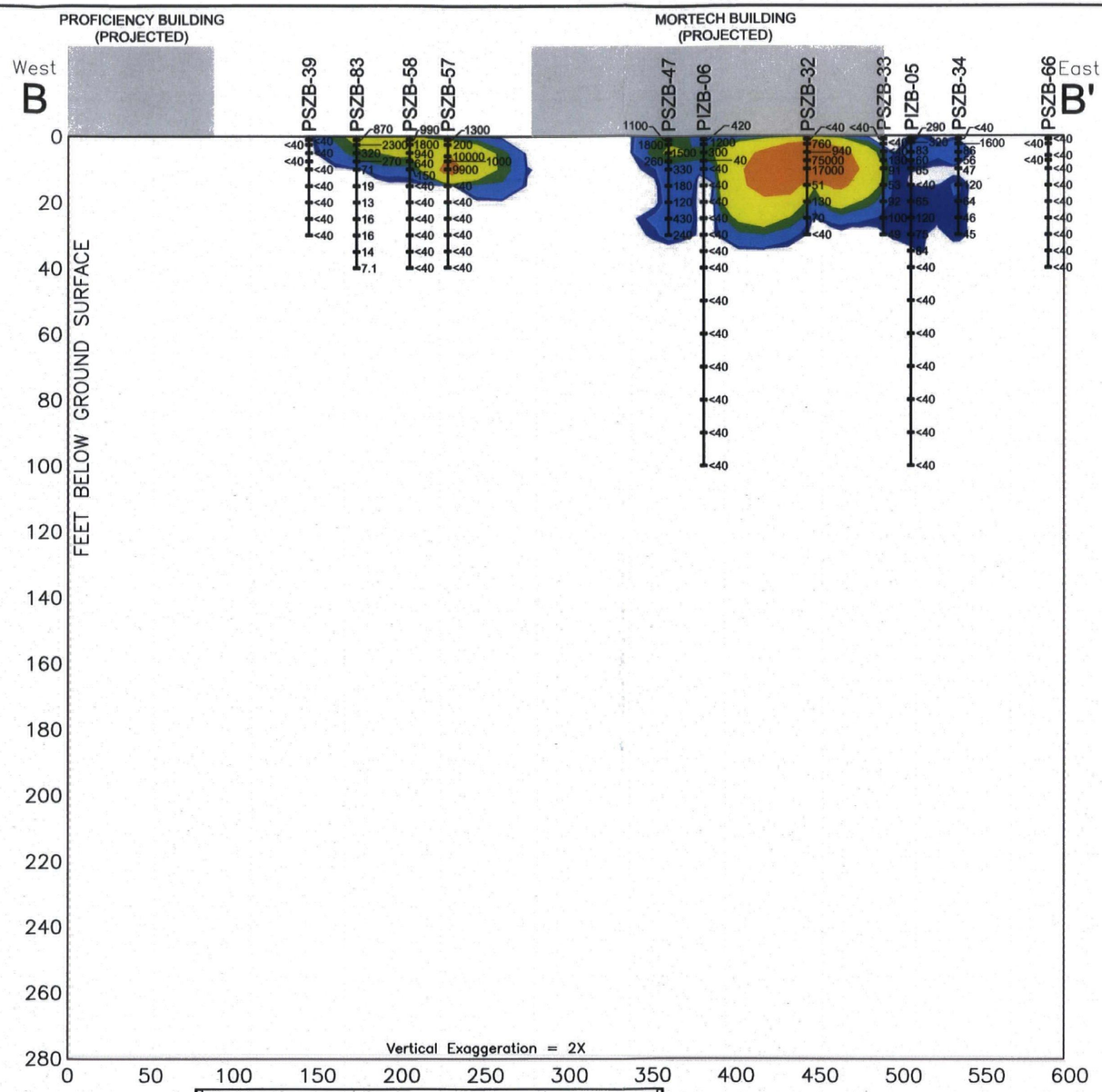
0 50 100 Approximate scale in feet

DISTRIBUTION OF PERCHLORATE 0 TO 20 FEET BGS

411 N. AEROJET AVENUE PROPERTY
AZUSA / IRWINDALE STUDY AREA
Azusa and Irwindale, California

By: jrw	Date: 01/08/08	Project No. 7190.006
Geomatrix		Figure 2





Notes:

1. The isoconcentration contours shown on the various views represent interpolated approximations of the distribution of perchlorate in soil based on available data.

<6 Perchlorate not detected at a concentration greater than the laboratory reporting limit (6 ug/kg) using EPA method 6850.

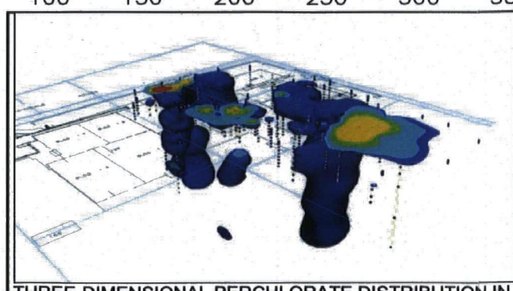
<40 Perchlorate not detected at a concentration greater than the laboratory limit (40 ug/kg) using EPA method 314.

Approximate scale in feet: 0, 40, 80

PSZB-11 - BORING ID

Concentration of Perchlorate (ug/kg)

Explanation: >5000, >1000, >500, >100, >40, <40



THREE-DIMENSIONAL PERCHLORATE DISTRIBUTION IN SOIL VIEWED FROM THE SOUTHWEST

CROSS SECTION A-A' and CROSS SECTION B-B'

411 N. AEROJET AVENUE PROPERTY
AZUSA / IRWINDALE STUDY AREA
Azusa and Irwindale, California

By: llu | Date: 01/08/08 | Project No. 7190.006

Geomatrix

Figure 3

Plot Date: 01/09/08 - 1:03pm, Plotted by: lumy
Drawing Path: I:\Project\7190\CAD\411 N Aerojet Drive\, Drawing Name: FOR 411 PROJ_A-I SECTIONS UPDATE 11-27-07.dwg

South C

PSZB-86 PSZB-77 PSZB-72 PSZB-62 PIZB-9 PDZB-21 PSZB-44 PSZB-19 PIZB-4 PIZB-4A MORTECH BUILDING (PROJECTED) PSZB-32 PSZB-20 DRAGONIS INVESTMENTS BUILDING (PROJECTED) PIZB-8 PSZB-84 PSZB-88 PSZB-88A

C' North

FEET BELOW GROUND SURFACE

0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

0 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850 900

Vertical Exaggeration = 2X

0 40 80

Approximate scale in feet

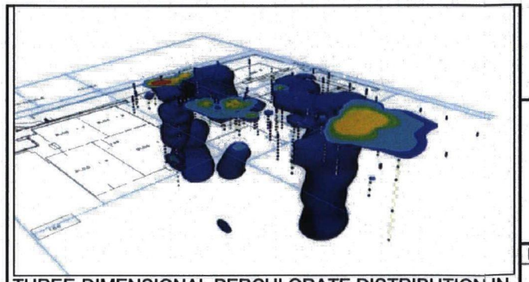
PSZB-11 - BORING ID

180 <40 <40 <40

Explanation

Concentration of Perchlorate (ug/kg)

>5000
>1000
>500
>100
>40
<40



THREE-DIMENSIONAL PERCHLORATE DISTRIBUTION IN SOIL VIEWED FROM THE SOUTHWEST

Notes:

1. The isoconcentration contours shown on the various views represent interpolated approximations of the distribution of perchlorate in soil based on available data.
2. Contouring data set does not include results from borings inside the Mortech building.

<6 Perchlorate not detected at a concentration greater than the laboratory reporting limit (6 ug/kg) using EPA method 6850.

<40 Perchlorate not detected at a concentration greater than the laboratory limit (40 ug/kg) using EPA method 314.

CROSS SECTION C-C'

411 N. AEROJET AVENUE PROPERTY
AZUSA / IRWINDALE STUDY AREA
Azusa and Irwindale, California

By: llu	Date: 01/08/08	Project No. 7190.006
Geomatrix		Figure 4

Plot Date: 01/09/08 - 4:06pm, Plotted by: jjenkins
Drawing Path: I: "Project\ 7190\CAD\411 N Aerojet Drive\", Drawing Name: FOR 411 PROJ_A-I SECTIONS UPDATE 11-27-07.dwg

PROFICIENCY
SGV LLC
BUILDING

EXCAVATION WITHIN RECIPROCAL EASEMENT (STIPPLED AREA) SUBJECT TO ADJACENT EASEMENT HOLDER APPROVAL

RECIPROCAL EASEMENT BOUNDARY

411 N. AEROJET AVENUE PROPERTY BOUNDARY

PROPOSED MORTECH BUILDING EXPANSION

TRUCK WELL

Truck Well

MORTECH BUILDING

Loading Dock

Parking Area

5000

1000

500

1000

500

500

1000

Aerojet Avenue (forrmer Central Ave.)

0 25 50
Approximate scale in feet

Explanation

- Proposed building expansion
- Current building
- Chain link fence
- Parcel boundary
- Easement boundary
- 500 — Perchlorate isoconcentration contour (500 µg/kg)
- 1000 — Perchlorate isoconcentration contour (1000 µg/kg)
- 5000 — Perchlorate isoconcentration contour (5000 µg/kg)

Approximate excavation quanitities:

Phase I = 21,000 cy

Phase II = 5,500 cy

Total Excavation Volume = 26,500 cy

Notes:

1. Volumes are in-place volumes.
2. It is assumed that a maximum slope of 1:1 will be possible in areas adjacent to and within 20' of buildings.
3. Excavation areas will be to maximum of 20' bgs.
4. Utilities not shown or accounted for in volumes.

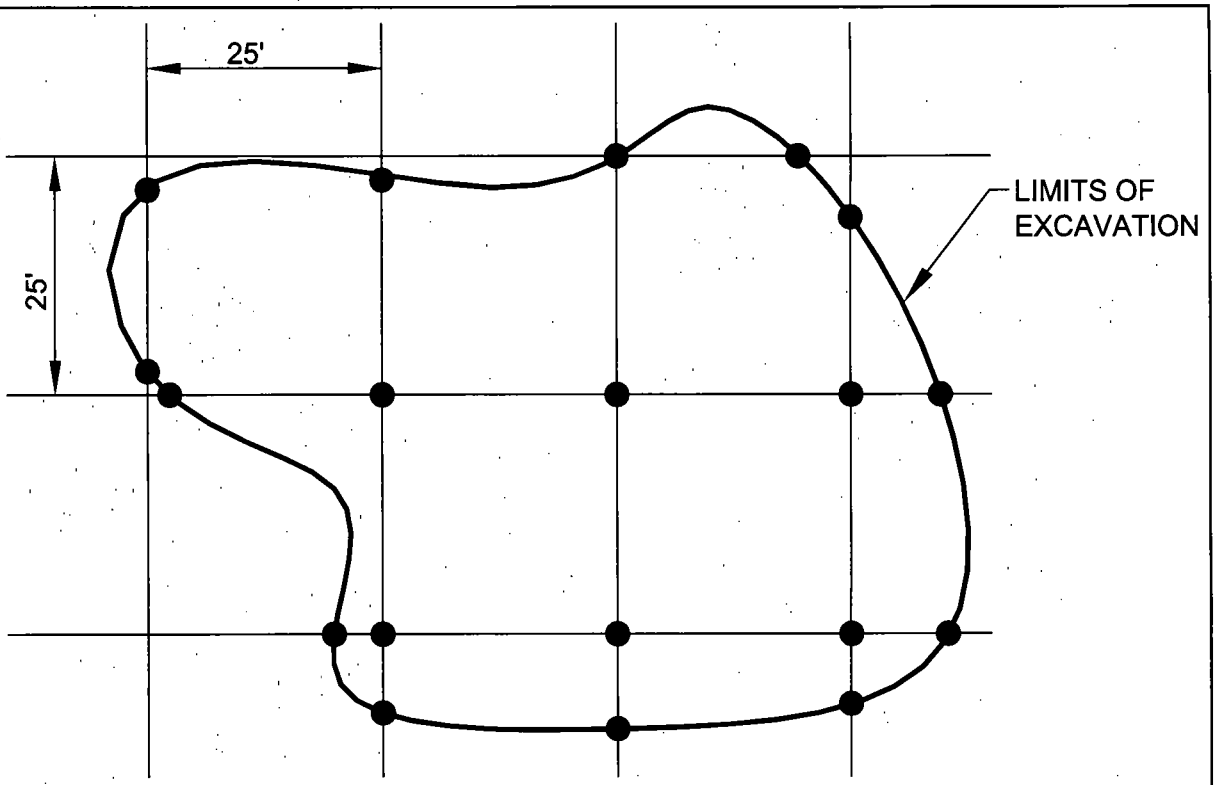
Basemap modified from a Harding-ESE figure, revised 4/01, and a map provided by PerkinElmer, Optoelectronics, Inc., dated July, 2003.

SOIL EXCAVATION AREAS AND PROJECT PHASING

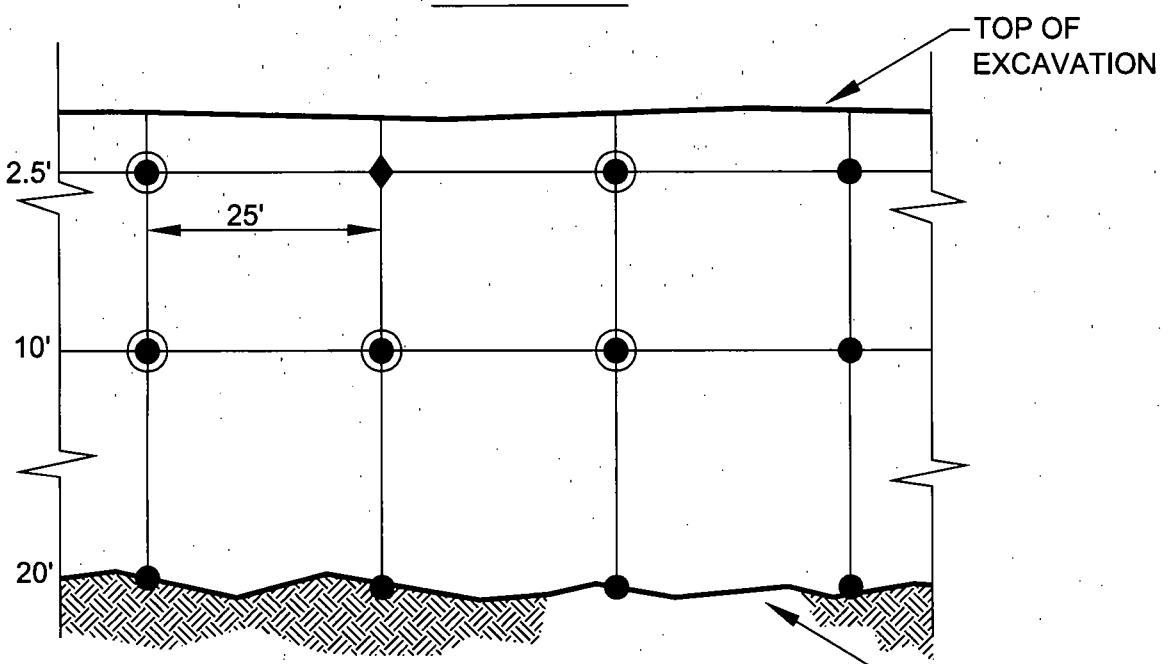
411 N. AEROJET AVENUE PROPERTY
AZUSA / IRWINDALE STUDY AREA
Azusa and Irwindale, California

By: llu	Date: 01/17/08	Project No. 7190.006
Geomatrix		Figure 5

Plot Date: 01/18/08 - 3:33pm, Plotted by: mdionne
Drawing Path: I:\Project\7190\CAD\411 N Aerojet Drive\, Drawing Name: Figure 5 - Excavation Areas and Phasing.dwg



PLAN VIEW



EXAMPLE OF SIDEWALL AVERAGING CALCULATION

Explanation

- Confirmation sample location
- Confirmation sample exceeding 500 mg/kg
- Adjacent samples used in calculating average

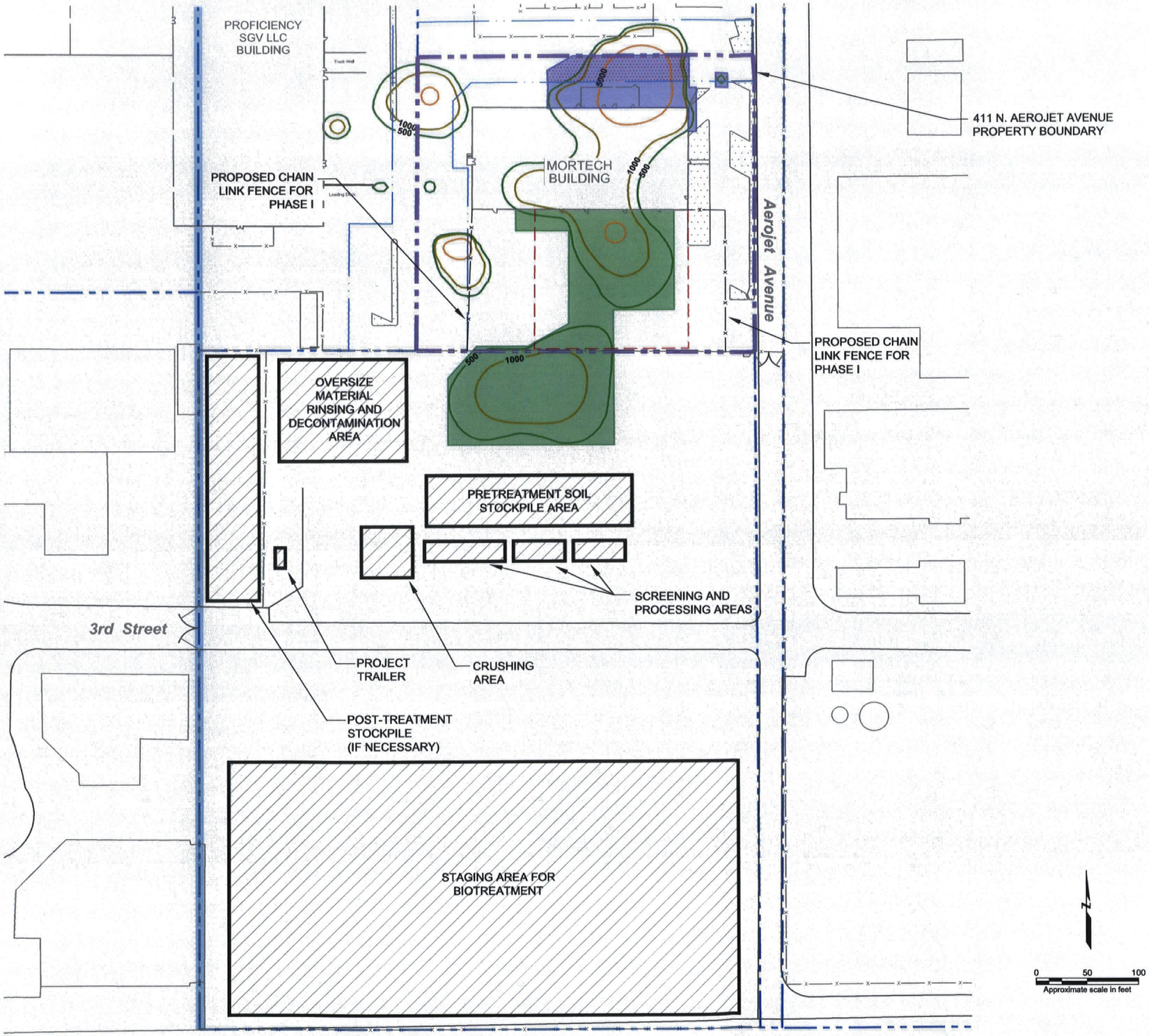
Notes:

1. Sidewall samples shall be collected at locations where the excavation wall intersects the 25' by 25' sampling grid.
2. Sidewall samples shall be collected at three distinct depths, 2.5 feet (near surface), 10 feet (midpoint) and 20 feet, or the excavation bottom if the excavation is less than twenty feet.

EXAMPLE CONFIRMATION SAMPLING GRID

411 N. AEROJET AVENUE PROPERTY
AZUSA / IRWINDALE STUDY AREA
Azusa and Irwindale, California

By: llu	Date: 01/18/08	Project No. 7190.006
Geomatrix		Figure 6



Explanation

- Irwindale-Azusa boundary
- Current building
- Existing chain link fence
- Parcel boundary
- Easement boundary
- 500 Perchlorate isoconcentration contour (500 µg/kg)
- 1000 Perchlorate isoconcentration contour (1000 µg/kg)
- 5000 Perchlorate isoconcentration contour (5000 µg/kg
- Proposed building expansion

Phase I excavation

Phase II excavation

Notes:

1. Fencing shall be placed around active excavation areas for each phase. Phase I fencing shown only.
2. Excavation quantities shown on Figure 5.

Basemap modified from a Harding-ESE figure, revised 4/01, and a map provided by PerkinElmer, Optoelectronics, Inc., dated July, 2003. 2005, 2006 2007 boring locations based on Cal Veda surveys of April 2005, February-March 2006, April 2007, and November 2007.

PRELIMINARY PROJECT LAYOUT

411 N. AEROJET AVENUE PROPERTY
AZUSA / IRWINDALE STUDY AREA
Azusa and Irwindale, California

By: llu	Date: 01/17/08	Project No. 7190.006
Geomatrix		Figure 7

Plot Date: 01/18/08 - 3:35pm, Plotted by: mdonne
Drawing Path: I:\Project\7190\CAD\411 N Aerojet Drive\, Drawing Name: Figure 7 - Project Layout.dwg

PROFICIENCY SGV LLC BUILDING

MORTECH BUILDING

TRUCK WELL

Truck Well

Loading Dock

DETECTOR CHECK

HYDRANT

PIV

PROPOSED MORTECH BUILDING EXPANSION

411 N. AEROJET AVENUE PROPERTY BOUNDARY

Parking Area

Aerojet Avenue

500

1000

3000

0 25 50

Approximate scale in feet

Explanation

- Current building
- Chain link fence
- Parcel boundary
- Easement boundary
- Electrical line
- Gas line
- Irrigation line
- Process gas lines
- Sewer line
- Telecom/Data line
- Water mains - risers
- Proposed building expansion
- 500 Perchlorate isoconcentration contour (500 ug/kg)
- 1000 Perchlorate isoconcentration contour (1000 ug/kg)
- 5000 Perchlorate isoconcentration contour (5000 ug/kg)

Phase I excavation

Phase II excavation

Basemap modified from a Harding-ESE figure, revised 4/01, and a map provided by PerkinElmer, Optoelectronics, Inc., dated July, 2003.

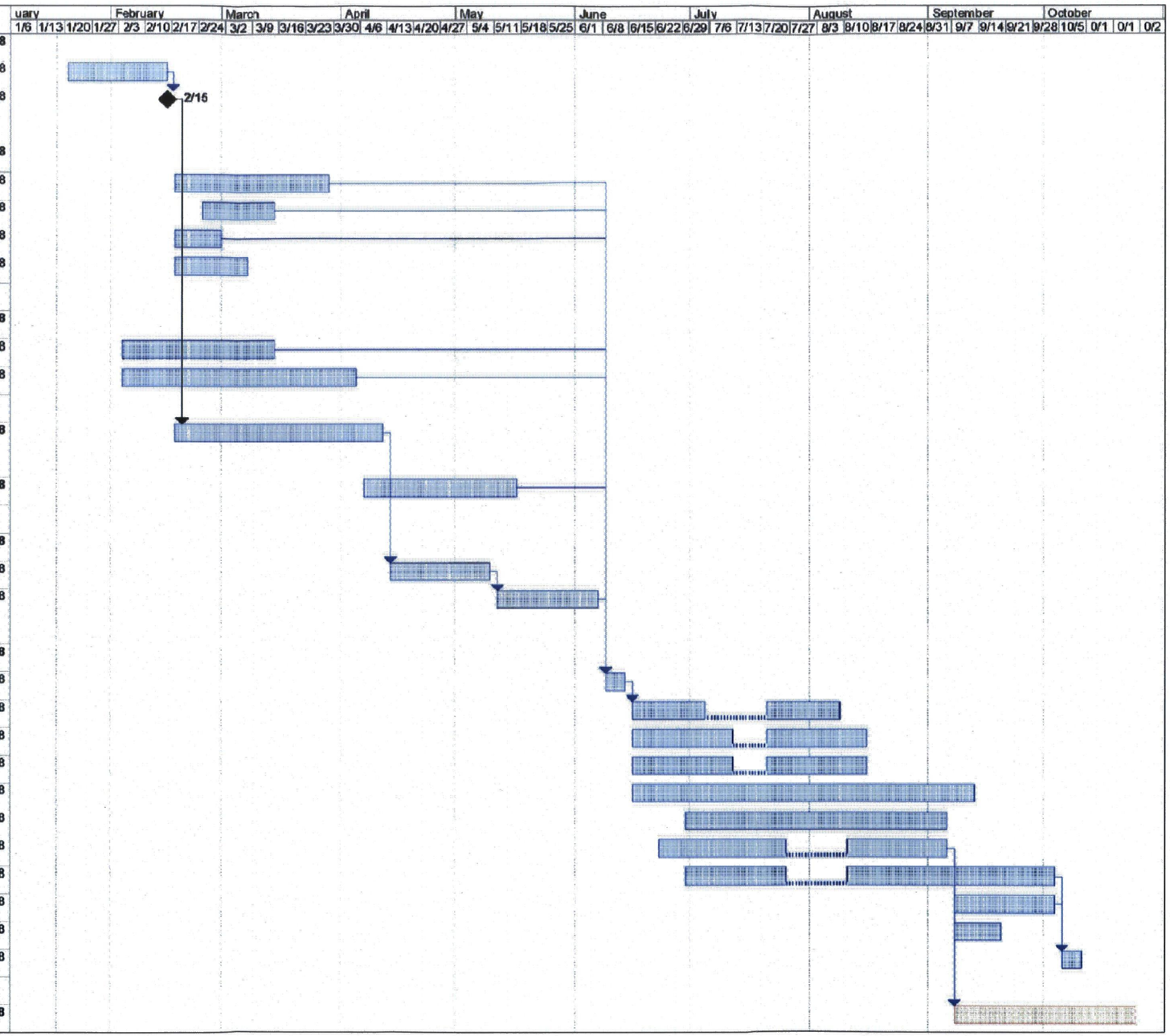
SITE UTILITY LOCATION MAP

411 N. AEROJET AVENUE PROPERTY
AZUSA / IRWINDALE STUDY AREA
Azusa and Irwindale, California

By: llu	Date: 01/17/08	Project No. 7190.006
Geomatrix		Figure 8

Plot Date: 01/18/08 - 3:36pm, Plotted by: mdionne
Drawing Path: I:\Project\7190\CAD\411 N Aerojet Drive\, Drawing Name: Figure 8 - Site Utilities.dwg

ID	Task Name	Duration	Start	Finish
1	**Workplan Review and Approval**	**20 days**	**Mon 1/21/08**	**Fri 2/15/08**
2	LARWQCB review	20 days	Mon 1/21/08	Fri 2/15/08
3	Workplan Approval	0 days	Fri 2/15/08	Fri 2/15/08
4				
5	**Pre-Project Testing**	**30 days**	**Mon 2/18/08**	**Fri 3/28/08**
6	Acquire soil samples and perform biotreatment treatability study	30 days	Mon 2/18/08	Fri 3/28/08
7	Test and correlate field screening methods	15 days	Mon 2/25/08	Fri 3/14/08
8	Geotechnical test pits and testing	10 days	Mon 2/18/08	Fri 2/29/08
9	Utility potholing and investigation	15 days	Mon 2/18/08	Fri 3/7/08
10				
11	**Permitting and Access Agreements**	**45 days**	**Mon 2/4/08**	**Fri 4/4/08**
12	Access agreements with adjacent properly owners	30 days	Mon 2/4/08	Fri 3/14/08
13	Project permitting	45 days	Mon 2/4/08	Fri 4/4/08
14				
15	**Prepare Contract Documents**	**40 days**	**Mon 2/18/08**	**Fri 4/11/08**
16				
17	**Procurement of Specialized Equipment (If Necessary)**	**30 days**	**Mon 4/7/08**	**Fri 5/16/08**
18				
19	**Subcontractor Procurement**	**40 days**	**Mon 4/14/08**	**Fri 6/6/08**
20	Project bidding period	20 days	Mon 4/14/08	Fri 5/9/08
21	Choose and negotiate with subcontractor	20 days	Mon 5/12/08	Fri 6/6/08
22				
23	**Phase I Remediation**	**90 days**	**Mon 6/9/08**	**Fri 10/10/08**
24	Mobilization	5 days	Mon 6/9/08	Fri 6/13/08
25	Excavation, field screening and confirmation samples	30 days	Mon 6/16/08	Fri 8/8/08
26	Soil preparation for biotreatment process	40 days	Mon 6/16/08	Fri 8/15/08
27	Load biotreatment cells	40 days	Mon 6/16/08	Fri 8/15/08
28	Soil biotreatment period and confirmatory sampling	65 days	Mon 6/16/08	Fri 9/12/08
29	Dry treated soil	50 days	Mon 6/30/08	Fri 9/5/08
30	Backfill and compaction	45 days	Mon 6/23/08	Fri 9/5/08
31	Paving	60 days	Mon 6/30/08	Fri 10/3/08
32	Stockpile or futher treatment of soil, as necessary	20 days	Mon 9/8/08	Fri 10/3/08
33	Disposal of large diameter soil and other project wastes	10 days	Mon 9/8/08	Fri 9/19/08
34	Demobilization	5 days	Mon 10/6/08	Fri 10/10/08
35				
36	**Building Construction (By Others)**	**35 days**	**Mon 9/8/08**	**Fri 10/24/08**

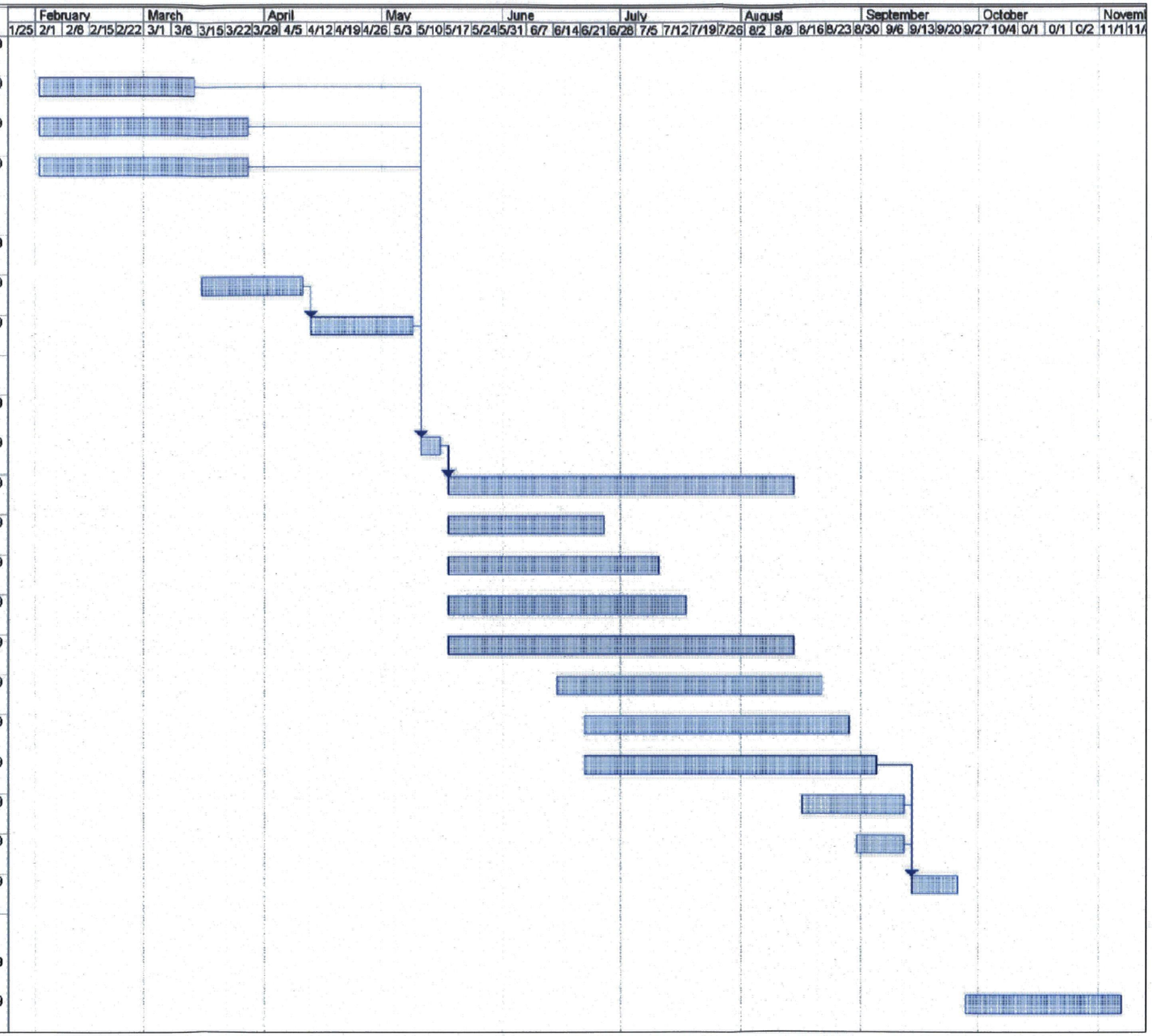


PHASE I SCHEDULE

411 N. AEROJET AVENUE PROPERTY
AZUSA / IRWINDALE STUDY AREA
Azusa and Irwindale, California

By: llu	Date: 01/18/08	Project No. 7190.006
Geomatrix		Figure **9A**

ID	Task Name	Duration	Start	Finish
1	**Phase II Permitting and Access Agreements**	**40 days**	**Mon 2/2/09**	**Fri 3/27/09**
2	Access agreements with adjacent property owners	30 days	Mon 2/2/09	Fri 3/13/09
3	Project permitting	40 days	Mon 2/2/09	Fri 3/27/09
4	Coordination with utility companies	40 days	Mon 2/2/09	Fri 3/27/09
5				
6	**Phase II Subcontractor Procurement**	**40 days**	**Mon 3/16/09**	**Fri 5/8/09**
7	Project bidding period	20 days	Mon 3/16/09	Fri 4/10/09
8	Choose and negotiate with subcontractor	20 days	Mon 4/13/09	Fri 5/8/09
9				
10	**Phase II Remediation**	**130 days**	**Mon 5/11/09**	**Fri 11/6/09**
11	Mobilization	5 days	Mon 5/11/09	Fri 5/15/09
12	Support, replace or relocate utilities	65 days	Mon 5/18/09	Fri 8/14/09
13	Excavation, field screening and confirmation samples	30 days	Mon 5/18/09	Fri 6/26/09
14	Soil preparation for biotreatment process	40 days	Mon 5/18/09	Fri 7/10/09
15	Load biotreatment cells	45 days	Mon 5/18/09	Fri 7/17/09
16	Soil biotreatment period and confirmatory sampling	65 days	Mon 5/18/09	Fri 8/14/09
17	Drying treated soil	50 days	Mon 6/15/09	Fri 8/21/09
18	Backfill and compaction	50 days	Mon 6/22/09	Fri 8/28/09
19	Paving	55 days	Mon 6/22/09	Fri 9/4/09
20	Stockpile or futher treatment of soil, as necessary	20 days	Mon 8/17/09	Fri 9/11/09
21	Disposal of large diameter soil and other project wastes	10 days	Mon 8/31/09	Fri 9/11/09
22	Demobilization	10 days	Mon 9/14/09	Fri 9/25/09
23				
24	**Finalize site closure**	**30 days**	**Mon 9/28/09**	**Fri 11/6/09**
25	Final reporting to regulatory agencies	30 days	Mon 9/28/09	Fri 11/6/09



PHASE II SCHEDULE

411 N. AEROJET AVENUE PROPERTY
AZUSA / IRWINDALE STUDY AREA
Azusa and Irwindale, California

By: llu	Date: 01/18/08	Project No. 7190.006
Geomatrix		Figure **9B**

Plot Date: 01/18/08 - 12:18pm, Plotted by: mdonne
Drawing Path: I:_Project\7190_CAD\7411 N Aerojet Drive_, Drawing Name: Figure 9A-PHASE I SCHEDULE.dwg

APPENDIX A

Covenants, Conditions and Restrictions

FIRST AMERICAN TITLE INSURANCE COMPANY

RECORDING REQUESTED BY AND
WHEN RECORDED RETURN TO.

06 0068366

Gibson, Dunn & Crutcher LLP
333 South Grand Avenue, 48th Floor
Los Angeles, California 90071
Attention: Mark S. Pecheck

THIS INSTRUMENT FILED FOR RECORD BY FIRST AMERICAN TITLE INSURANCE COMPANY AS AN ACCOMMODATION ONLY IT HAS NOT BEEN EXAMINED AS TO ITS EXECUTION OR AS TO ITS EFFECT UPON TITLE

196908-23

(Space above line for recorder's use only)

DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS, AND RESERVATION OF EASEMENTS

THIS DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS, AND RESERVATION OF EASEMENTS (this "Declaration"), is made as of January 4, 2006, by PROFICIENCY SGV LLC, a Delaware limited liability company ("Declarant"), with reference to the following facts

RECITALS

A Declarant is the owner of that certain real property located at 1300 Optical Drive and 500 North Aerojet Avenue, in the Cities of Azusa and Irwindale, County of Los Angeles, State of California, more particularly described on Exhibit "A" attached hereto and incorporated herein by reference (the "Property")

B The Property currently consists of two separate and distinct parcels of land (each a "Parcel" and together the "Parcels"), upon which there are existing buildings (the "Buildings") and other improvements.

C Declarant deems it desirable to establish certain mutual easements, covenants, and restrictions upon the Property and each of the Parcels which will constitute a general scheme for the development, maintenance and use of the Property and for the benefit of the Property and each of the Parcels, all for the purpose of enhancing, maintaining and protecting the value, utility and attractiveness of the Property

NOW, THEREFORE, Declarant hereby declares (i) that the Property and each of the Parcels is and shall be held, conveyed, hypothecated, encumbered, leased, rented, used and occupied subject to the following limitations, restrictions, mutual easements, covenants, conditions, servitudes, liens and charges, which are hereby declared to be for the benefit of the Property and each of the Parcels, and (ii) that all of the said limitations, restrictions, easements,

covenants, conditions, servitudes, liens and charges shall run with the land, shall be binding on and inure to the benefit of all parties having or acquiring any right, title or interest in the Property or any of the Parcels, and are for the benefit of the successors in interest of all such parties

ARTICLE ONE
DEFINITIONS

As used in this Declaration, the following terms shall have the meanings set forth in this Article One

1 01 Fire Equipment The fire hydrant and other fire protection equipment currently located on Parcel B, as more particularly depicted in Exhibit "J" attached hereto

1 02 Infrastructure Any and all of the underground gas, sanitary sewer, domestic water pipes and fire water pipes, lines and associated infrastructure which is the purpose of the applicable Infrastructure Easement.

1 03 Infrastructure Easement Each of the Gas Infrastructure Easement, Sanitary Sewer Infrastructure Easement and the Water and Fire Infrastructure Easement

1 04 Ingress and Egress Easement Each of the Parcel A Ingress and Egress Easement and the Parcel B Ingress and Egress Easement

1.05 Mortgage. Any indenture, mortgage, deed of trust or similar instrument securing a loan made in good faith and for value with respect to the development or permanent financing or refinancing of a Parcel or any portion thereof or improvements thereon, and to the extent applicable a sale/leaseback fee owner of any Parcel.

1.06 Mortgagee Any mortgagee, a beneficiary under any deed of trust, and to the extent applicable sale/leaseback fee owner of any Parcel, and any successor following a foreclosure or deed in lieu of foreclosure with respect to a Mortgage.

1 07 Owner One or more persons or entities who alone or collectively are the record owner of fee simple title to a Parcel, including Declarant, or the vendee under an installment land sales contract, but excluding those having any such interest merely as security for the performance of an obligation. If the ownership of any building or other similar improvement on any portion of a Parcel shall ever be severed from the ownership of the Parcel, whether by lease or by deed, the Owner(s) of the interest in the Parcel and not the building or other improvement shall be deemed the Owner hereunder If a Parcel is leased, the Owner of the fee title and not the lessee of such Parcel shall be deemed the Owner hereunder regardless of the duration of the lease

1.08 Parcel(s) Each of Parcel A and Parcel B (which together comprise the Property) as more particularly described on the Site Plan attached hereto as Exhibit "I".

1 09 Planter. The planter currently located on Parcel B, as more particularly depicted in Exhibit "J" attached hereto

1.10 Users All persons granted permission to utilize any part of a Parcel, including without limitation Owners, employees, representatives, service persons, licensees, invitees, customers, contractors, agents, lessees, sublessees, tenants, and concessionaires

1 11 Vehicle Turning Easement. Each of the Parcel A Vehicle Turning Easement and the Parcel B Vehicle Turning Easement as more particularly described in Article 2 01 of this Declaration

ARTICLE TWO
RESERVATION OF EASEMENTS

2 01 Vehicle Turning Area Easement

(a) In Favor of Parcel A Declarant hereby reserves for the benefit of the Owner of Parcel A and its authorized Users an irrevocable, perpetual and nonexclusive appurtenant easement over and across a portion of Parcel B for the turning and maneuvering of vehicles as more particularly depicted in Exhibit "B-1" attached hereto and legally described in Exhibit "B-2" attached hereto (the "Parcel A Vehicle Turning Area Easement")

(b) In Favor of Parcel B. Declarant hereby reserves for the benefit of the Owner of Parcel B and its authorized Users an irrevocable, perpetual and nonexclusive appurtenant easement over and across a portion of Parcel A for the turning and maneuvering of vehicles as more particularly depicted in Exhibit "C-1" attached hereto and legally described in Exhibit "C-2" attached hereto (the "Parcel B Vehicle Turning Area Easement").

(c) Access to each Vehicle Turning Area Easement None of the Owners of Parcel A or Parcel B shall erect or permit the erection of any trash enclosure, above ground utility, fire hydrant, electrical transformer, fence, gate, barrier, building or other structure, device or improvement on its respective Vehicle Turning Area Easement (other than the Fire Equipment or Planter) None of the Owners of Parcel A or Parcel B shall permit its respective Vehicle Turning Area Easement to be used for the storage or parking of vehicles, trailers, containers or other items

2 02 Ingress and Egress Easements

(a) In Favor of Parcel A. Declarant hereby reserves for the benefit of the Owner of Parcel A an irrevocable, perpetual and nonexclusive appurtenant easement over and across a portion of Parcel B as more particularly depicted in Exhibit "D-1" attached hereto and legally described in Exhibit "D-2" attached hereto for driveway purposes, fire department access and vehicular ingress to and egress from Parcel A (the "Parcel A Ingress and Egress Easement").

(b) In Favor of Parcel B Declarant hereby reserves for the benefit of the Owner of Parcel B irrevocable, perpetual and nonexclusive appurtenant easements over and across a portion of Parcel A, as more particularly depicted in Exhibit "E-1" attached hereto and legally described in Exhibit "E-2" attached hereto, for driveway purposes, fire department access and vehicular ingress to and egress from Parcel B (the "Parcel B Ingress and Egress Easement")

(c) No Obstructions Permitted. None of the Owners of Parcel A or Parcel B shall erect or permit the erection of any trash enclosure, above ground utility, fire hydrant, electrical transformer, fence, gate, barrier, building or structure, device or other improvements on any portion of the Property subject to an Ingress and Egress Easement None of the Owners of Parcel A or Parcel B shall permit any portion of the Property subject to an Ingress and Egress Easement to be used for the storage or parking of vehicles, trailers, containers or other items

2 03 Easement for Sanitary Sewer Purposes Declarant hereby reserves for the benefit of the Owners of Parcel A and Parcel B an irrevocable, perpetual and nonexclusive appurtenant underground easement for sanitary sewer Infrastructure purposes (the "Sanitary Sewer Infrastructure Easement"). The location of the Sanitary Sewer Infrastructure Easement is depicted in Exhibit "F-1" attached hereto and legally described in Exhibit "F-2" attached hereto. Each Owner shall maintain in good order, repair and condition the Sanitary Sewer Infrastructure Easement All repairs required to be made by each Owner hereunder shall be of good quality and workmanship The Owner of Parcel A shall, after performing, or causing the performance of, any construction to repair the Sanitary Sewer Infrastructure Easement located on Parcel B, promptly restore Parcel B to the condition it was in prior to construction by the Owner of Parcel A on Parcel B The Owner of Parcel B shall, after performing, or causing the performance of, any construction to repair the Sanitary Sewer Infrastructure Easement located on Parcel A, promptly restore Parcel A to the condition it was in prior to construction by the Owner of Parcel B on Parcel A

2 04 Easement for Water and Fire Infrastructure Purposes. Declarant hereby reserves for the benefit of the Owner of Parcel A an irrevocable, perpetual and nonexclusive appurtenant underground easement for water and fire underground Infrastructure purposes to allow the Owner of Parcel A to access the public water main situated in Optical Drive "AKA" Montoya Street (the "Water and Fire Infrastructure Easement") The Water and Fire Infrastructure Easement is depicted in Exhibit "G-1" attached hereto and legally described in Exhibit "G-2" attached hereto The Owner of Parcel A shall maintain in good order, repair and condition the Fire and Water Infrastructure Easement. All repairs required or permitted to be made by the Owner of Parcel A hereunder shall be performed in a manner that does not unreasonably interfere with the use of Parcel B by the Owner of Parcel B or its Users, and such repairs shall be of good quality and workmanship. The Owner of Parcel A shall, after performing, or causing the performance of, any construction to repair the Fire and Water Infrastructure Easement located on Parcel B promptly restore Parcel B to the condition it was in prior to construction by the Owner of Parcel A on Parcel B.

2 05 Easement for Gas Infrastructure Purposes. Declarant hereby reserves for the benefit of the Owner of Parcel A an irrevocable, perpetual and nonexclusive appurtenant underground easement for gas Infrastructure purposes to allow the Owner of Parcel A to access the public gas main situated in Optical Drive "AKA" Montoya Street (the "Gas Infrastructure Easement") The Gas Infrastructure Easement is depicted in Exhibit "H-1" attached hereto and legally described in Exhibit "H-2" attached hereto The Owner of Parcel A shall maintain in good order, repair and condition the Gas Infrastructure Easement All repairs required or permitted to be made by the Owner of Parcel A hereunder shall be performed in a manner that does not unreasonably interfere with the use of Parcel B by the Owner of Parcel B or its Users, and such repairs shall be of good quality and workmanship The Owner of Parcel A shall, after

performing, or causing the performance of, any construction to repair the Gas Infrastructure Easement located on Parcel B, promptly restore Parcel B to the condition it was in prior to construction by the Owner of Parcel A on Parcel B

2 06 Relocation Rights

(a) If the Owner of Parcel A wishes to expand to the south the existing Building located on Parcel A, the Owner of Parcel A shall have the right to request that the Owner of Parcel B relocate any of the Infrastructure to an area (i) within the boundaries of the relevant Infrastructure Easement, (ii) outside the boundaries of Parcel B; or (iii) within the boundaries of Parcel B If the Owner of Parcel A wishes the Owner of Parcel B to relocate the Infrastructure either within the boundaries of the relevant Infrastructure Easement or outside the boundaries of Parcel B, consent by the Owner of Parcel B to the proposed relocation of any Infrastructure shall not be unreasonably withheld, provided that the proposed relocation can be undertaken so as not to interfere with the use and enjoyment of Parcel B by the Owner and Users of Parcel B If the Owner of Parcel A wishes to relocate the Infrastructure within the boundaries of Parcel B but outside the boundaries of the relevant Infrastructure Easement, the Owner of Parcel B may withhold its approval in its sole and absolute discretion

(b) In the event that the Owner of Parcel A desires to exercise its right to request that the Owner of Parcel B relocate any of the Infrastructure, the Owner of Parcel A shall give not less than sixty (60) days written notice to the Owner of Parcel B specifying in reasonable detail the relocation work it wishes the Owner of Parcel B to undertake, including, without limitation, drawings prepared by a licensed engineer chosen by the Owner of Parcel B in its sole and absolute discretion showing the proposed new location of any Infrastructure No later than thirty (30) days prior to the date when the Owner of Parcel B is to begin any requested relocation work, the Owner of Parcel A shall deliver to the Owner of Parcel B a cash deposit (the "Relocation Deposit") in the amount of one hundred fifty percent (150%) of the estimated costs to complete such requested relocation (as determined by the licensed engineer chosen by the Owner of Parcel B). All costs and other sums, including engineering and attorneys' fees and costs, expended by the Owner of Parcel B in connection with or related to the relocation of any Infrastructure, and the costs to promptly restore Parcel B to the condition it was in prior to such requested relocation, shall be chargeable to and payable from the Relocation Deposit; provided, however, that if and to the extent that the actual costs of any relocation of Infrastructure incurred by the Owner of Parcel B should exceed the amount of the Relocation Deposit, then the Owner of Parcel A shall reimburse the Owner of Parcel B for all such excess costs, promptly and in no event later than thirty (30) days following the receipt by the Owner of Parcel A of a reasonably itemized invoice therefor, and provided further, that if the actual costs incurred by the Owner of Parcel B in connection with the relocation of any Infrastructure are less than the amount of the Relocation Deposit, then the Owner of Parcel B shall refund any unused portion of the Relocation Deposit promptly and in no event later than thirty (30) days following the completion of the relocation of such Infrastructure.

(c) If any of the Infrastructure is relocated as provided in this Section 2 06, then upon the completion of the relocation of such Infrastructure, the Owner of Parcel A and the Owner of Parcel B will enter into an agreement to amend this Declaration in accordance with Section 6.02 below.

ARTICLE THREE
USE AND RESTRICTIVE COVENANTS

3 01 Use The Property and each Parcel shall be used for or in support of industrial, office and warehouse purposes or for other uses incidental thereto and in no event shall any Parcel be used in a manner which is inconsistent with the current zoning regulations or other governmental ordinances and regulations on or affecting the Property, and no other use shall be permitted.

3 02. Nuisances No Owner shall use or permit the use of its Parcel or any portion thereof (i) for the conduct of any offensive, noisy, noxious, or dangerous trade, business, manufacturing activity, or occupation, (ii) for any activity which physically interferes with the business conducted on any other Parcel in the Property; (iii) for any activity which materially or unreasonably interferes with the quiet enjoyment of any other Owner, including, but not limited to, vibration, sound, electro-mechanical and magnetic disturbances, light, radiation, air or water pollution, dust or emission of odorous, toxic or non-toxic matter, or (iv) in violation of any law, ordinance, rule or regulation of any governmental authority having jurisdiction over the Property or any portion thereof.

3 03 Specifically Prohibited Uses Without limiting the generality of Section 3 02, the following uses of any Parcel are not permitted and are specifically prohibited

(a) Establishments having topless, bottomless, or totally nude or partially nude performers, waitresses, waiters, or other personnel, or which provide recorded entertainment having nude or partially nude persons performing or simulating sexual acts, businesses which show X-rated movies or pornographic movies or sell pornographic material, businesses which operate as massage parlors, modeling studios, pool halls or amusement parlors

(b) Trailer courts, slaughterhouses, tanneries, canneries, barns, stables, cemeteries, junk yards, scrap metal yards or waste material businesses, or any fire or bankruptcy sale operations.

(c) Dangerous, hazardous or unsafe uses such as the use of explosives. No oil, gasoline or other such flammables shall be stored in violation of any local, state, federal or other governmental code or regulation No ponds, lagoons, impoundments, reservoirs or earthen works may be installed or constructed on any Parcel for storage, containment or disposal of any materials or wastes.

3 04 Duty to Maintain. Each Owner shall maintain in good order, repair and condition its respective Parcel, including, without limitation, all driveways and asphalt or concrete pavement on any part of a Vehicle Turning Area Easement located on such Owner's Parcel, fences, buildings, walls and signs located upon such Parcel in first-class condition and repair, including paint or other finish on the structures thereon. All repairs required to be made by any Owner hereunder shall be of at least equivalent quality and design as the original work

3 05 New Construction

(a) No Owner or User shall add to or modify a Building or other improvements (including loading docks) upon a Parcel (the "New Construction") if and to the extent that such addition or modification would interfere with, obstruct or impede the use of any Vehicle Turning Area Easement by the other Owner or any of such other Owner's authorized Users, without the express prior written consent of the other Owner, which consent may be granted or withheld at such other Owner's sole and absolute discretion.

(b) Prior to the Owner of Parcel A beginning any New Construction, the Owner of Parcel A shall prepare and submit to the Owner of Parcel B a construction management plan detailing a specific action plan to minimize and mitigate any potential disruption to the Owner of Parcel B and its Users during the period of New Construction. The Owner of Parcel A shall not begin any New Construction unless and until the Owner of Parcel B shall have approved such construction management plan, which approval shall not be unreasonably withheld, conditioned or delayed

3 06 Screening of Outdoor Storage Neither the Owner of Parcel A nor its Users shall store any materials, vehicles, containers, trailers or other such items nor erect any trash enclosure, storage area, electrical transformer or similar structure, device or improvement outside of any Buildings on Parcel A ("Outdoor Storage") unless the Owner of Parcel A has erected a screen to enclose any portion of Parcel A used for Outdoor Storage (the "Screen") The Screen shall be at least six (6) feet in height and constructed of a chain link fence with decorative slats or other such materials as are reasonably satisfactory to the Owner of Parcel B and will be constructed at the sole cost and expense of the Owner of Parcel A and in compliance with all applicable governmental regulations. For the purposes of this Section 3.06, the term "Outdoor Storage" shall not include the parking of passenger vehicles Prior to beginning construction of the Screen, the Owner of Parcel A shall acquire all necessary permits and approvals from all government authorities having jurisdiction over such matter

3.07 Relocation or Removal of Planter and/or Relocation of Fire Equipment upon Expansion of the Building on Parcel A.

(a) If the Owner of Parcel A wishes to expand to the south the existing Building located on Parcel A and the ingress or egress of vehicles to and from the expanded Building is impeded by the Planter or the Fire Equipment, the Owner of Parcel A shall have the right, at its sole cost and expense, to request that the Owner of Parcel B:

(i) remove the Planter and install protective bollards ("Bollards") in an area around the Fire Equipment or reduce the size of the Planter (each "Planter Construction Work"). If the Owner of Parcel A requests the Owner of Parcel B to undertake any Planter Construction Work, consent by the Owner of Parcel B shall not be unreasonably withheld, provided that Planter Construction Work can be undertaken so as not to interfere with the use and enjoyment of Parcel B by the Owner and Users of Parcel B; and/or

(ii) relocate the Fire Equipment (the "Relocation of Fire Equipment") either (A) outside the boundaries of Parcel B; or (B) within the boundaries of Parcel B. If the Owner of Parcel A wishes to undertake the Relocation of Fire Equipment outside the boundaries of Parcel B, consent by the Owner of Parcel B shall not be unreasonably withheld, provided that

the Relocation of Fire Equipment can be undertaken so as not to interfere with the use and enjoyment of Parcel B by the Owner and Users of Parcel B If the Owner of Parcel A requests the Owner of Parcel B to undertake the Relocation of Fire Equipment within the boundaries of Parcel B, the Owner of Parcel B may withhold its approval in its sole and absolute discretion

(b) The Owner of Parcel A will, at its sole cost and expense, obtain all necessary permits and approvals from all government authorities having jurisdiction over such matters to enable the Owner of Parcel B to perform either the Planter Construction Work and/or Relocation of Fire Equipment, as applicable

(c) In the event that the Owner of Parcel A desires to exercise its right to request that the Owner of Parcel B undertake either the Planter Construction Work and/or the Relocation of Fire Equipment, the Owner of Parcel A shall give not less than sixty (60) days written notice to the Owner of Parcel B specifying in reasonable detail the construction it wishes the Owner of Parcel B to undertake including, without limitation, drawings prepared by a licensed engineer chosen by the Owner of Parcel B in its sole and absolute discretion showing the proposed new location of the Fire Equipment or the proposed location of the Bollards No later than thirty (30) days prior to the date when the Owner of Parcel B is to begin the Planter Construction Work or Relocation of Fire Equipment, the Owner of Parcel A shall provide to the Owner of Parcel B a Relocation Deposit in the amount of one hundred fifty percent (150%) of the estimated costs to complete the Planter Construction Work or Relocation of Fire Equipment, as applicable, (as determined by the licensed engineer chosen by the Owner of Parcel B) All costs and other sums, including engineering and attorneys' fees and costs, expended by the Owner of Parcel B in connection with or related to the relocation of the Planter and/or Fire Equipment shall be chargeable to and payable from the Relocation Deposit, provided, however, that if and to the extent that the actual costs of any Planter Construction Work or Relocation of Fire Equipment incurred by the Owner of Parcel B should exceed the amount of the Relocation Deposit, then the Owner of Parcel A shall reimburse the Owner of Parcel B for all such excess costs, promptly and in no event later than thirty (30) days following the receipt by the Owner of Parcel A of a reasonably itemized invoice therefor, and provided further, that if the actual costs incurred by the Owner of Parcel B in connection with any Planter Construction Work or Relocation of Fire Equipment are less than the amount of the Relocation Deposit, then the Owner of Parcel B shall refund any unused portion of the Relocation Deposit promptly and in no event later than thirty (30) days following the completion of any Planter Construction Work or Relocation of Fire Equipment, as the case may be.

ARTICLE FOUR
INSURANCE; INDEMNIFICATION

4 01 Owners' Public Liability Insurance Each Owner shall at all times during the term of such Owner's ownership of a Parcel, maintain or cause to be maintained at the sole expense of such Owner, comprehensive public liability insurance protecting against claims for bodily injury, property damage, and personal injury arising directly or indirectly out of the ownership, use, occupancy or maintenance of such Owner's Parcel, including without limitation the structures located thereon Such policy shall have a limit of not less than $1,000,000 per occurrence and be in a comprehensive general liability form with at least the following endorsements· (i) deleting any employee exclusion on personal injury coverage; (ii) including employees as additional

insureds, (iii) providing for blanket contractual coverage, broad form property damage coverage, and products completed operations coverage (if appropriate), (iv) deleting any liquor liability exclusions, and (v) providing for coverage of employers' automobile non-ownership liability In addition, at least $2,000,000 excess liability insurance shall be obtained and maintained by each Owner for any and all claims, including all legal liability imposed and all court costs and attorneys' fees incurred in connection with the ownership, use, occupancy or maintenance of such Owner's Parcel.

4 02 Certificates; Waiver of Subrogation All policies of insurance carried by each Owner as provided in this Article shall name the other Owner as an additional insured and shall contain waivers of subrogation against the other Owner. Each Owner shall have the power to adjust and settle any loss under such policies with its insurer Each Owner shall provide a certificate to the other Owner upon request for each such policy, as renewed from time to time, showing the additional insureds, and stating that such insurance is in force and effect and that the premiums therefor have been paid Such insurance shall provide that the same may not be canceled without at least 30 days' prior written notice to the other Owner

4 03 Indemnification To the fullest extent permitted by law, each Owner shall indemnify, defend, protect and hold the other Owner and its directors, officers, partners, members, agents, representatives and employees harmless from any claim, loss, liability, demand, cost or expense, including attorneys' fees and costs, arising directly or indirectly out of (a) any act, error, omission or instance of neglect by such Owner or any of its directors, officers, partners, members or Users; and (b) the failure to adequately maintain its Parcel in accordance with Article 3 04 of this Declaration by such Owner or any of its directors, officers, partners, members or Users.

ARTICLE FIVE
DEFAULT BY AN OWNER

5 01 No Waiver, Enforcement by Owners The failure of any Owner to enforce any provision of this Declaration or to seek redress for any breach of the provisions hereof by the other Owner shall in no event be deemed a waiver of the right to do so thereafter

5 02. Protection of Mortgagees. A breach of any of the restrictions, conditions, covenants or reservations herein contained shall not defeat or render invalid the lien of any bona fide Mortgage made in good faith and for value as to any Parcel, or any portion or portions thereof, but such restrictions, conditions, covenants and reservations shall be binding upon and effective against any Owner or Owners of any such Parcel, or any portion or portions thereof, whose title is acquired by foreclosure, trustee's sale, or otherwise

ARTICLE SIX
GENERAL PROVISIONS

6 01 Term The easements, covenants, and obligations set forth in this Declaration shall continue in full force and effect in perpetuity from the date of recordation hereof, unless this Declaration is terminated by a written instrument executed, acknowledged and recorded by the then owners of Parcel A and Parcel B Subject to the foregoing, each of Parcel A and Parcel

B shall hereinafter be held, transferred, sold, leased, conveyed and occupied subject to the easements, covenants, and obligations set forth herein

6 02 Amendment of Declaration. Until such time as there is an Owner of any portion of the Property other than Declarant, this Declaration may be amended and such amendment shall be effective when executed by Declarant and recorded in the Official Records of Los Angeles County, California From and after the date there is an Owner other than Declarant, this Declaration may be amended and such amendment shall become effective when executed by both the Owner of Parcel A and the Owner of Parcel B, and recorded in the Official Records of Los Angeles County, California

6 03 Limitation of Liability. To the fullest extent permitted by law, neither Declarant nor any of its directors, officers, partners, members, representatives, agents, employees, successors or assigns shall be liable to any Owner for any damage, loss or prejudice suffered or claimed on account of any decision, course of action, act, omission, error, negligence or the like made in good faith and reasonably believed to be within the scope of their rights and/or obligations To the extent this Declaration may create any liability in or impose any obligation upon Declarant, as an Owner, a User, or as Declarant hereunder, such obligation and/or liability shall be limited to the interest of Declarant in the Property and no recourse shall be had to any other assets of Proficiency SGV LLC

6 04 Notices Any notice to be given, including a change of address, to an Owner under the provisions of this Declaration shall be in writing and shall be deemed properly given when delivered personally or transmitted by fax, or three (3) business days after first-class mailing, postage prepaid, to the most recent address furnished by such Owner for such purpose, or if no such address shall have been furnished, then to the street address of such Owner's Parcel

6 05 Severability Invalidation of any of the provisions contained in this Declaration shall in no way affect any of the other provisions hereof, and the same shall remain in full force and effect unless enforcement of this Declaration as so invalidated would be unreasonable or grossly inequitable under all the circumstances, or would frustrate the purposes hereof

6 06 Attorneys' Fees. The prevailing party in any action by reason of any breach or alleged violation of any covenant, term or obligation hereof, or for the enforcement of any provision hereof, or otherwise arising out of this Declaration shall be entitled to its costs of suit and reasonable attorneys' fees, which shall be payable whether or not such action is prosecuted to judgment

6 07 Governing Law This Declaration shall be governed by and construed in accordance with the laws of the State of California applicable to contracts to be performed wholly within such state

6 08 No Third Parties Benefited The provisions of this Declaration are intended to benefit only Declarant, Property Manager, and each Owner No other persons may claims any benefits hereunder, nor shall they have the right to enforce the terms and provisions hereof.

IN WITNESS WHEREOF, the undersigned has executed this instrument this 4th day of January, 2006.

PROFICIENCY SGV LLC,
a Delaware limited liability company

By _____
Jeffrey N Trenton, President

STATE OF CALIFORNIA)
) SS
COUNTY OF LOS ANGELES)

On JANUARY 6, 2006, before me, JACQUELINE GLORIA VANCO, a Notary Public in and for said State, personally appeared JEFFREY N. TRENTON, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she~~/~~they~~ executed the same in his/~~her~~/~~their~~ authorized capacity(~~ies~~), and that by his/~~her~~/~~their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument

WITNESS my hand and official seal.

Jacqueline Gloria Vanco (SEAL)

JACQUELINE GLORIA VANCO
COMMISSION 1450868
NOTARY PUBLIC-CALIFORNIA
LOS ANGELES COUNTY
My Comm. Expires Nov 11, 2007

ORS-1 ORS-1

06 0068366

TABLE OF EXHIBITS

EXHIBIT "A"

LEGAL DESCRIPTION OF PROPERTY

PARCEL A

APN 8615-001-059

PARCEL A.

PARCEL 1 OF PARCEL MAP NO. 10328, IN THE CITY OF AZUSA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP FILED IN BOOK 95 PAGES 83 AND 84 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY

EXCEPT THEREFROM THE NORTHERLY 34 78 FEET OF SAID LAND.

SAID LEGAL WAS ALSO SHOWN ON A CERTIFICATE OF COMPLIANCE FOR LOT LINE ADJUSTMENT RECORDED JUNE 2, 1997 AS INSTRUMENT NO 97-815325 OF OFFICIAL RECORDS

PARCEL B

NON-EXCLUSIVE EASEMENT FOR PASSAGE OF VEHICLES AND PEDESTRIANS AS CREATED BY "RECIPROCAL EASEMENT AGREEMENT" DATED AUGUST 26, 2002 AS DELINEATED IN SITE PLAN THEREIN, SUBJECT TO THE TERMS AND PROVISIONS THEREIN, RECORDED AUGUST 27, 2002 AS INSTRUMENT NO 02-2004124 OF OFFICIAL RECORDS

PARCEL B

APN 8615-001-031

PARCEL 1

PARCEL 4 OF PARCEL MAP NO 7580, PARTLY IN THE CITY OF AZUSA, AND PARTLY IN THE CITY OF IRWINDALE, AS PER MAP FILED IN BOOK 81 PAGES 65 TO 68, INCLUSIVE OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL 2

AN EASEMENT FOR INGRESS, EGRESS AND UTILITIES PURPOSES OVER THAT PORTION OF PARCEL MAP NO 7580 PARTLY IN THE CITY OF AZUSA AND PARTLY IN THE CITY OF IRWINDALE, AS PER MAP FILED IN BOOK 81 PAGES 65 TO 68, INCLUSIVE OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF

SAID COUNTY INCLUDED WITHIN THAT CERTAIN STRIP OF LAND DESIGNATED ON SAID PARCEL MAP AS "36 FEET EASEMENT FOR INGRESS, EGRESS AND UTILITIES".

PORTIONS OF THE HEREINABOVE DESCRIBED EASEMENT HAVE NOW BEEN DEDICATED FOR PUBLIC USE, AS SHOWN AND DEDICATED ON PARCEL MAP NO. 10328, RECORDED IN BOOK 95 PAGES 83 TO 86 INCLUSIVE OF PARCEL MAPS.

APN 8615-021-018

REAL PROPERTY IN THE CITY OF IRWINDALE, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS

ALL OF PARCEL 5 AND THAT PORTION OF PARCEL 6 AS SHOWN ON PARCEL MAP NO. 7580, AS PER MAP FILED IN BOOK 81 PAGES 65 TO 68 INCLUSIVE OF PARCEL MAPS, AND THAT PORTION OF PARCEL 1 AS SHOWN ON PARCEL MAP NO. 10682, AS PER MAP FILED IN BOOK 96 PAGES 37 AND 38 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID LOS ANGELES COUNTY BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS

BEGINNING AT THE SOUTHEAST CORNER OF SAID PARCEL 5, THENCE SOUTH 89 DEGREES 27' 44" WEST, 381 07 FEET TO THE WESTERLY LINE OF SAID PARCEL 6; THENCE NORTH 0 DEGREES 04' 56" EAST, 258 28 FEET; THENCE SOUTH 89 DEGREES 36' 23" WEST, 82 00 FEET, THENCE NORTH 0 DEGREES 04' 56" EAST, 210 90 FEET, THENCE NORTH 88 DEGREES 02' 49" EAST, 463 34 FEET, THENCE SOUTH 0 DEGREES 04' 56" WEST, 480 84 FEET TO THE POINT OF BEGINNING

SAID LAND WAS ALSO SHOWN AS PARCEL "B" ON A CERTIFICATE OF COMPLIANCE RECORDED MARCH 3, 1998 AS INSTRUMENT NO 98-340929, OFFICIAL RECORDS.

01/11/06

JN 6088A rlg-051107 16 DWG DATE OCTOBER 2005 PREPARED BY THOMSEN ENGINEERING, INC. PREPARED FOR PROFICIENCY CAPITAL LLC

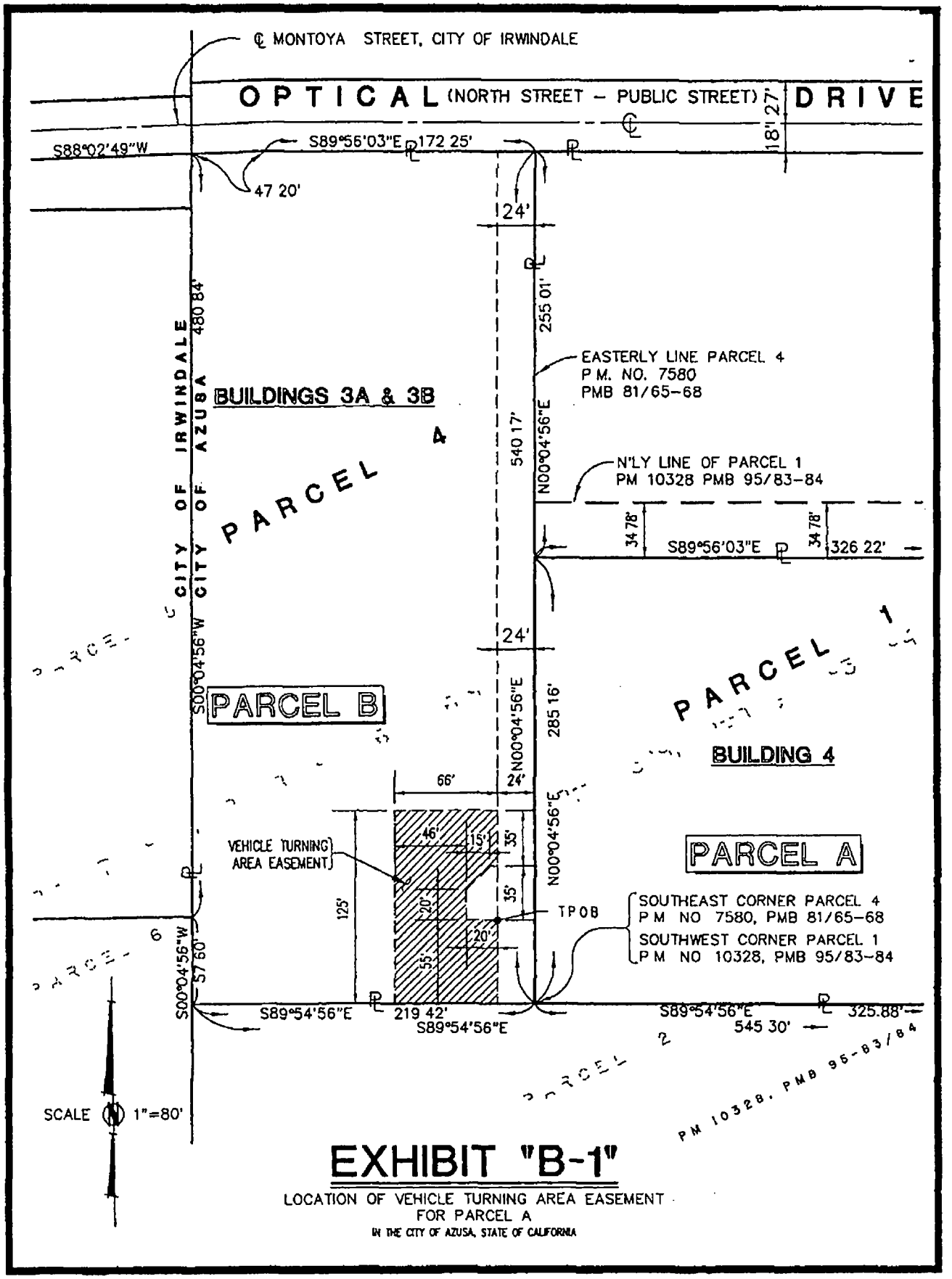


EXHIBIT "B-1"

LOCATION OF VEHICLE TURNING AREA EASEMENT
FOR PARCEL A
IN THE CITY OF AZUSA, STATE OF CALIFORNIA

06 0068366

EXHIBIT "B-2"

LEGAL DESCRIPTION
OF
PARCEL A VEHICLE TURNING AREA EASEMENT

THE EASTERLY 90 00 FEET OF THE SOUTHERLY 125 00 FEET OF PARCEL 4 OF PARCEL MAP NO 7580, IN THE CITY OF AZUSA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP FILED IN BOOK 81, PAGES 65 THROUGH 68 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT THEREFROM THE EASTERLY 24 00 FEET THEREOF

ALSO EXCEPT THEREFROM THAT PORTION THEREOF DESCRIBED AS FOLLOWS·

BEGINNING AT THE SOUTHEAST CORNER OF SAID PARCEL 4, THENCE ALONG THE SOUTHERLY LINE OF SAID PARCEL 4, NORTH 89^0 54' 56" WEST 24 00 FEET TO A LINE PARALLEL WITH THE EASTERLY LINE OF SAID PARCEL 4; THENCE ALONG SAID PARALLEL LINE, NORTH 0^0 04' 56" EAST 55.00 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 89^0 55' 04" WEST 20.00 FEET, THENCE NORTH 0^0 04' 56" EAST 20.00 FEET, THENCE NORTH 45^0 04' 56" EAST 21.21 FEET, THENCE SOUTH 89^0 55' 04" EAST 5 00 FEET TO SAID PARALLEL LINE, THENCE ALONG SAID PARALLEL LINE, SOUTH 0^0 04' 56" WEST 35.00 FEET TO THE TRUE POINT OF BEGINNING.

J.N. 6088A rfg-051107 16 DWG. DATE. OCTOBER 2005 PREPARED BY THOMSEN ENGINEERING, INC. PREPARED FOR: PROFICIENCY CAPITAL LLC

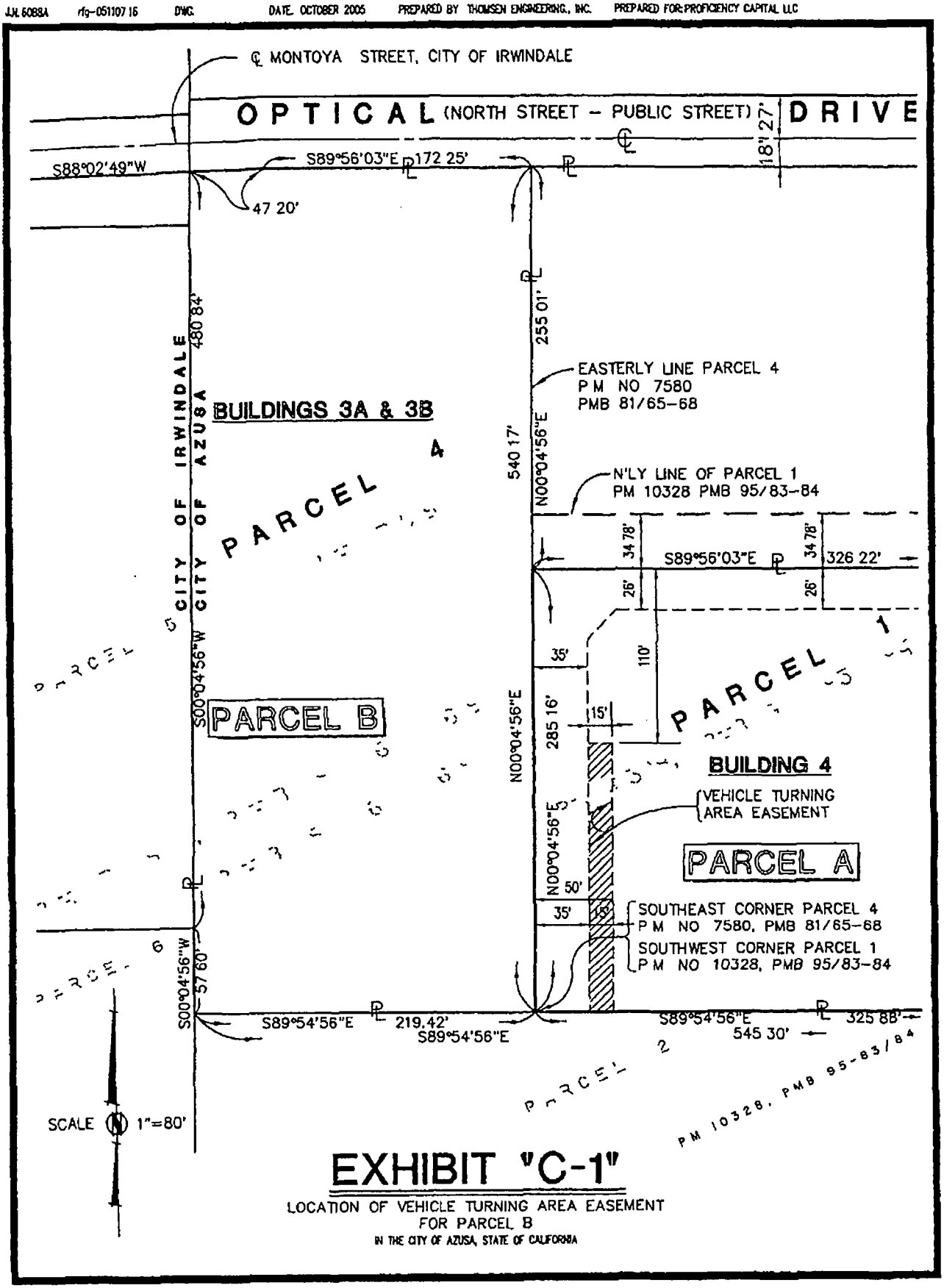


EXHIBIT "C-1"

LOCATION OF VEHICLE TURNING AREA EASEMENT
FOR PARCEL B
IN THE CITY OF AZUSA, STATE OF CALIFORNIA

06 0068366

EXHIBIT "C-2"

LEGAL DESCRIPTION
OF
PARCEL B VEHICLE TURNING AREA EASEMENT

THE EASTERLY 15.00 FEET OF THE WESTERLY 50 00 FEET OF PARCEL 1 OF PARCEL MAP NO. 10328, IN THE CITY OF AZUSA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP FILED IN BOOK 95, PAGES 83 AND 84 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY

EXCEPT THEREFROM THE NORTHERLY 144.78 FEET OF SAID PARCEL 1

J.N. 6068A rlg-051107 16 DWG. DATE: OCTOBER 2005 PREPARED BY: THOMSEN ENGINEERING, INC. PREPARED FOR: PROFICIENCY CAPITAL LLC

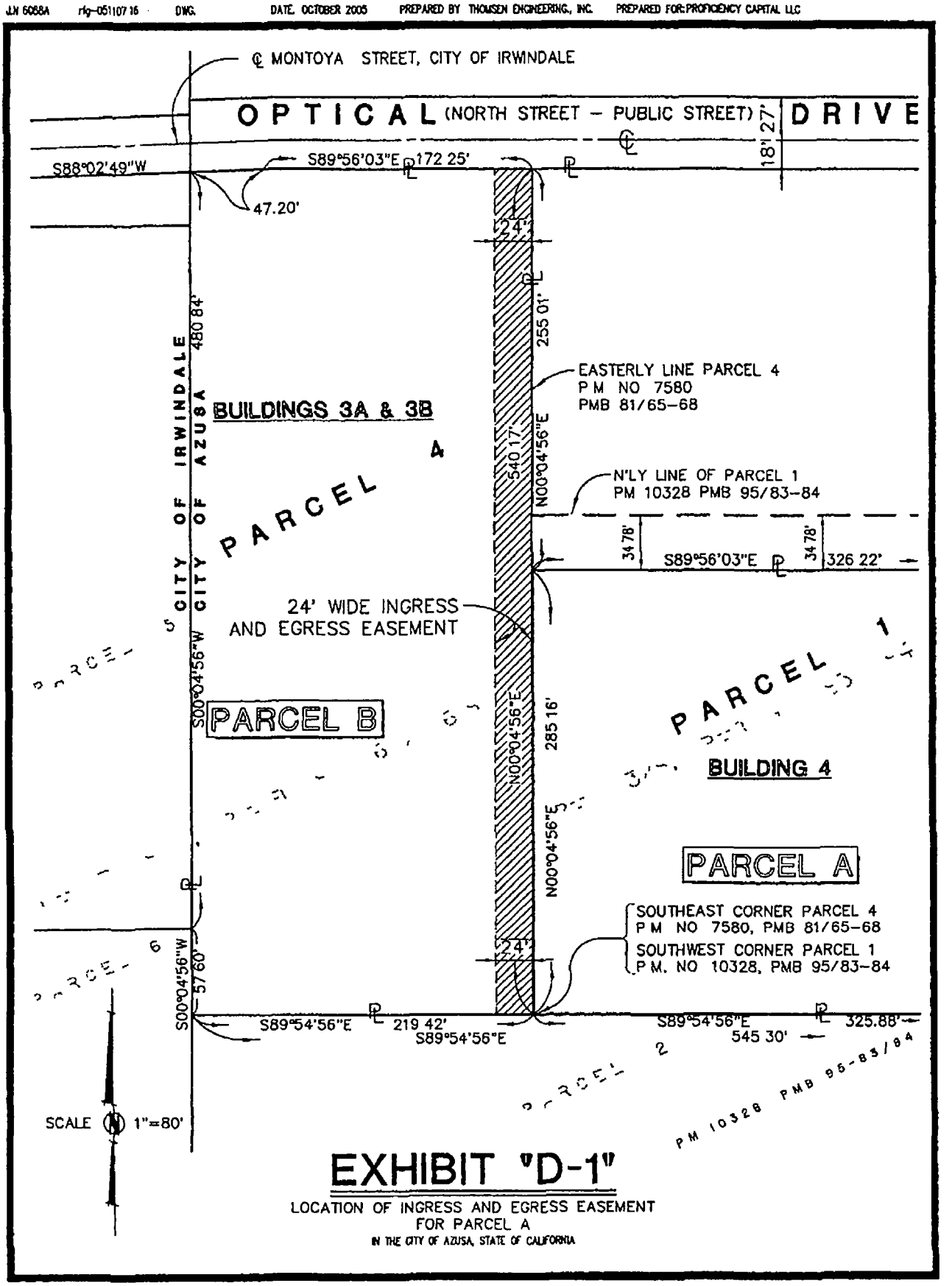


EXHIBIT "D-1"

LOCATION OF INGRESS AND EGRESS EASEMENT
FOR PARCEL A
IN THE CITY OF AZUSA, STATE OF CALIFORNIA

06 0068366

EXHIBIT "D-2"

LEGAL DESCRIPTION
OF
PARCEL A INGRESS AND EGRESS EASEMENT

THE EASTERLY 24.00 FEET OF PARCEL 4 OF PARCEL MAP NO. 7580, IN THE CITY OF AZUSA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP FILED IN BOOK 81, PAGES 65 THROUGH 68 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY

01/11/06

J.N. 6088A rfq-051107 16 DWG. DATE. OCTOBER 2005 PREPARED BY: THOMSEN ENGINEERING, INC PREPARED FOR: PROFICIENCY CAPITAL LLC

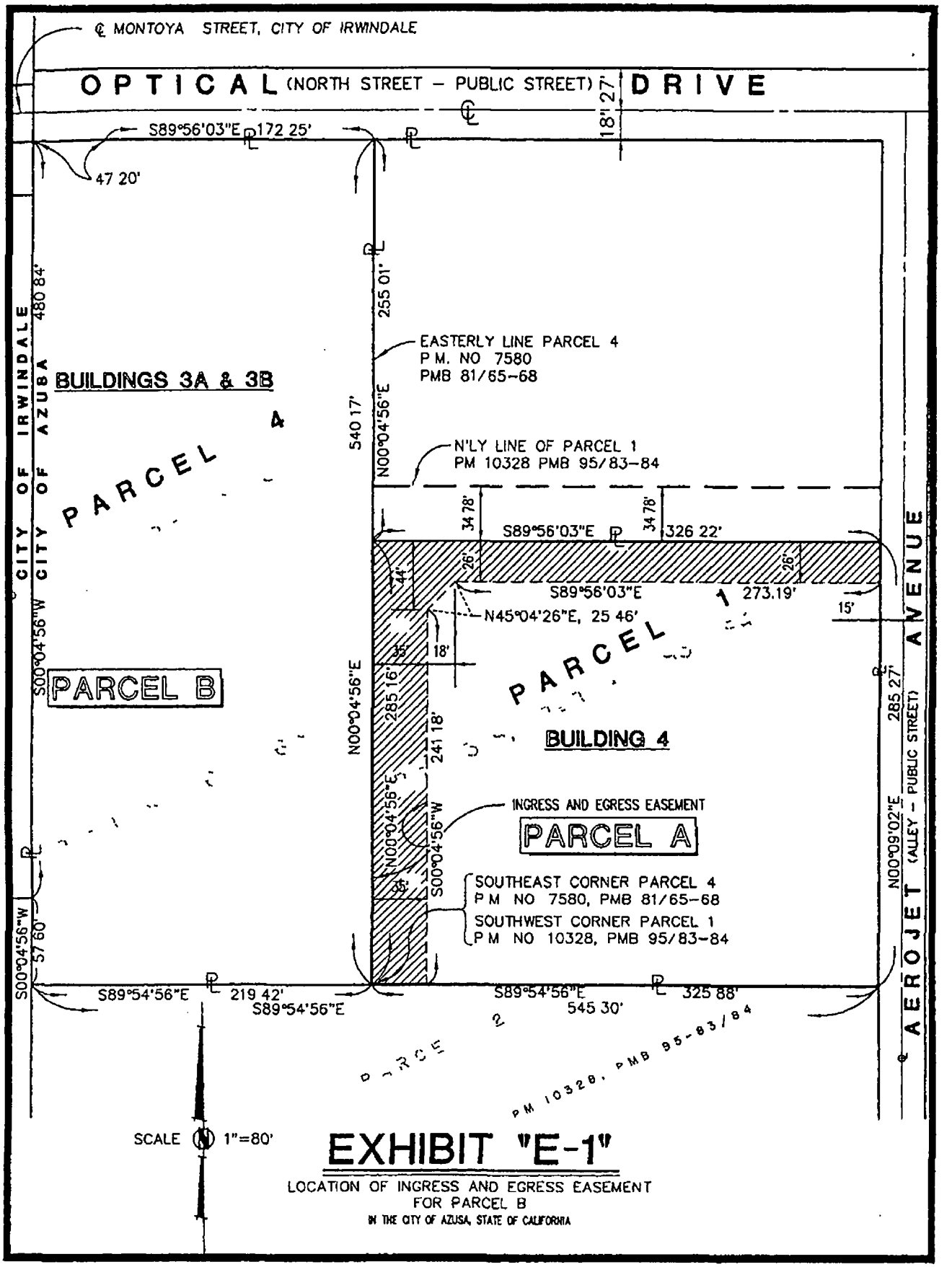


EXHIBIT "E-1"

LOCATION OF INGRESS AND EGRESS EASEMENT
FOR PARCEL B
IN THE CITY OF AZUSA, STATE OF CALIFORNIA

06 0068366

EXHIBIT "E-2"

LEGAL DESCRIPTION
OF
PARCEL B INGRESS AND EGRESS EASEMENT

THAT PORTION OF PARCEL 1 OF PARCEL MAP NO. 10328, IN THE CITY OF AZUSA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP FILED IN BOOK 95, PAGES 83 AND 84 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS

BEGINNING AT THE SOUTHWEST CORNER OF SAID PARCEL 1, BEING ALSO THE SOUTHEAST CORNER OF PARCEL 4 OF PARCEL MAP NO 7580, IN SAID CITY, COUNTY AND STATE, AS PER MAP FILED IN BOOK 81, PAGES 65 THROUGH 68 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY; THENCE ALONG THE COMMON BOUNDARY LINE OF SAID PARCELS 1 AND 4, NORTH 0^0 04' 56" EAST 285 16 FEET TO A POINT IN THE WESTERLY LINE OF SAID PARCEL 1, DISTANT THEREON SOUTH 0^0 04' 56" WEST 34 78 FEET FROM THE NORTHWEST CORNER OF SAID PARCEL 1; THENCE ALONG THE SOUTHERLY LINE OF THE NORTHERLY 34 78 FEET OF SAID PARCEL 1, SOUTH 89^0 56' 03" EAST 326 22 FEET THE WESTERLY LINE OF AEROJET AVENUE, 30.00 FEET IN WIDTH, SHOWN AS "ALLEY" ON SAID PARCEL MAP NO. 10328, THENCE ALONG SAID WESTERLY LINE, SOUTH 00^0 09' 02" WEST 26 00 FEET; THENCE PARALLEL WITH THE NORTHERLY LINE OF SAID PARCEL 1, NORTH 89^0 56' 03" WEST 273.19 FEET, MORE OR LESS, TO A POINT WHICH IS SOUTH 89^0 56' 03" EAST 53.00 FEET FROM THE WESTERLY LINE OF SAID PARCEL 1; THENCE SOUTHWESTERLY TO A POINT IN THE EASTERLY LINE OF THE WESTERLY 35.00 FEET OF SAID PARCEL 1, DISTANT THEREON SOUTH 0^0 04' 56" WEST 44 00 FEET FROM THE SOUTHERLY LINE OF SAID NORTHERLY 34.78 FEET, THENCE ALONG SAID EASTERLY LINE OF SAID WESTERLY 35 00 FEET, SOUTH 0^0 04' 56" WEST 241.18 FEET, MORE OR LESS, TO THE SOUTHERLY LINE OF SAID PARCEL 1; THENCE ALONG SAID SOUTHERLY LINE, NORTH 89^0 54' 56" WEST 35 00 FEET TO THE POINT OF BEGINNING.

J.N. 6068A rfq-051107 16 DWG. DATE OCTOBER 2005 PREPARED BY THOMSEN ENGINEERING, INC. PREPARED FOR PROFICIENCY CAPITAL LLC

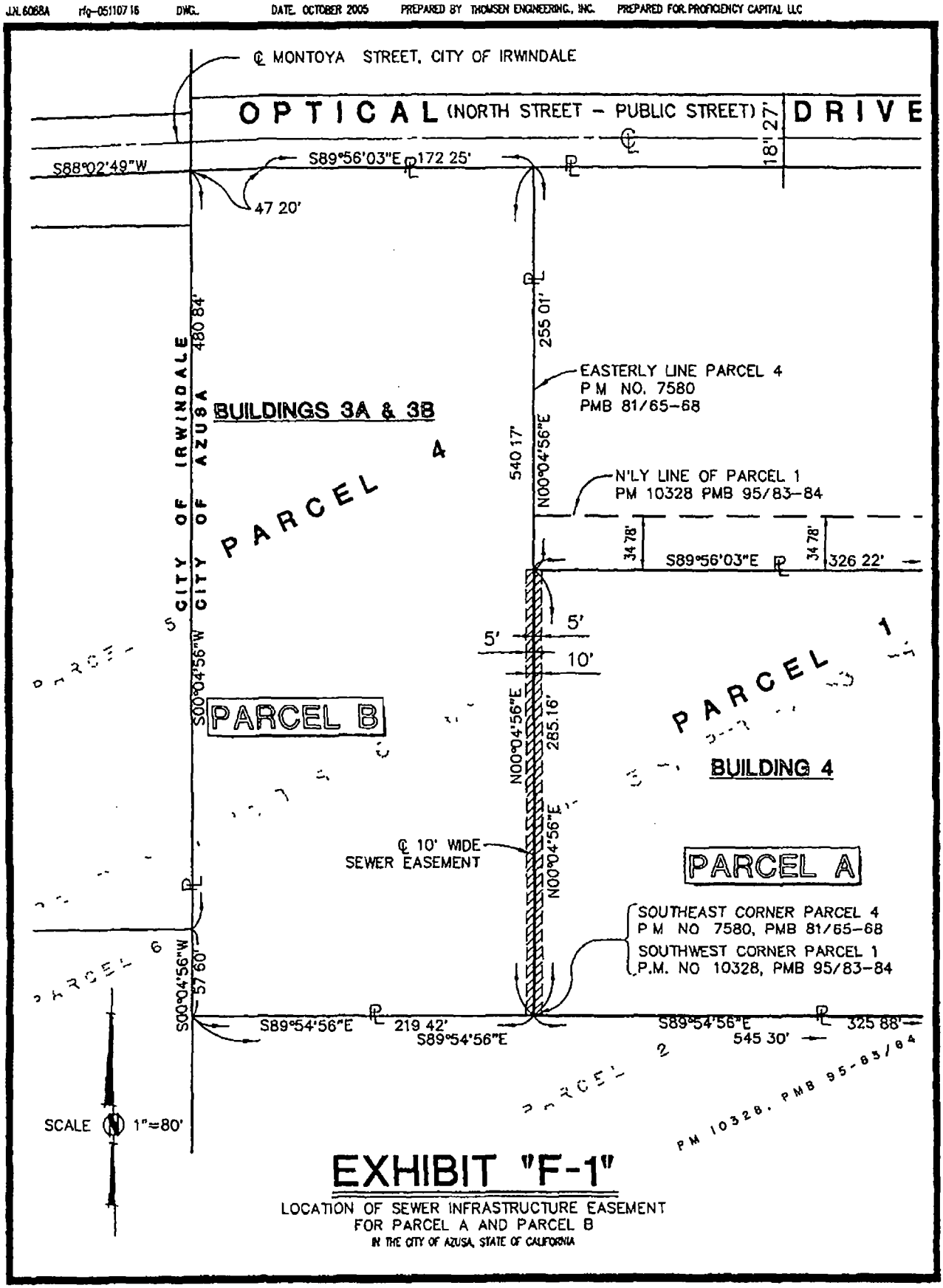


EXHIBIT "F-1"

LOCATION OF SEWER INFRASTRUCTURE EASEMENT
FOR PARCEL A AND PARCEL B
IN THE CITY OF AZUSA, STATE OF CALIFORNIA

06 0068366

EXHIBIT "F-2"

LEGAL DESCRIPTION
OF
SANITARY SEWER INFRASTRUCTURE EASEMENT

A STRIP OF LAND 10 00 FEET IN WIDTH, PARTLY WITHIN PARCEL 4 OF PARCEL MAP NO. 7580, IN THE CITY OF AZUSA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP FILED IN BOOK 81, PAGES 65 THROUGH 68 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY AND PARTLY WITHIN PARCEL 1 OF PARCEL MAP NO. 10328, IN SAID CITY, COUNTY AND STATE, AS PER MAP FILED IN BOOK 95, PAGES 83 AND 84 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, THE CENTERLINE OF WHICH IS DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID PARCEL 4, BEING ALSO THE SOUTHWEST CORNER OF SAID PARCEL 1; THENCE ALONG THE COMMON BOUNDARY LINE OF SAID PARCELS 4 AND 1, NORTH 0^0 04' 56" EAST 285 16 FEET TO A POINT IN THE WESTERLY LINE OF SAID PARCEL 1, DISTANT THEREON SOUTH 0^0 04' 56" WEST 34 78 FEET FROM THE NORTHWEST CORNER OF SAID PARCEL 1.

THE SIDE LINES THEREOF SHALL TERMINATE SOUTHERLY AT THE SOUTHERLY LINES OF SAID PARCELS 4 AND 1

01/11/06

J.N. 60884 rfg-051107 16 DWG. DATE OCTOBER 2005 PREPARED BY THOMSEN ENGINEERING, INC. PREPARED FOR: PROFICIENCY CAPITAL LLC

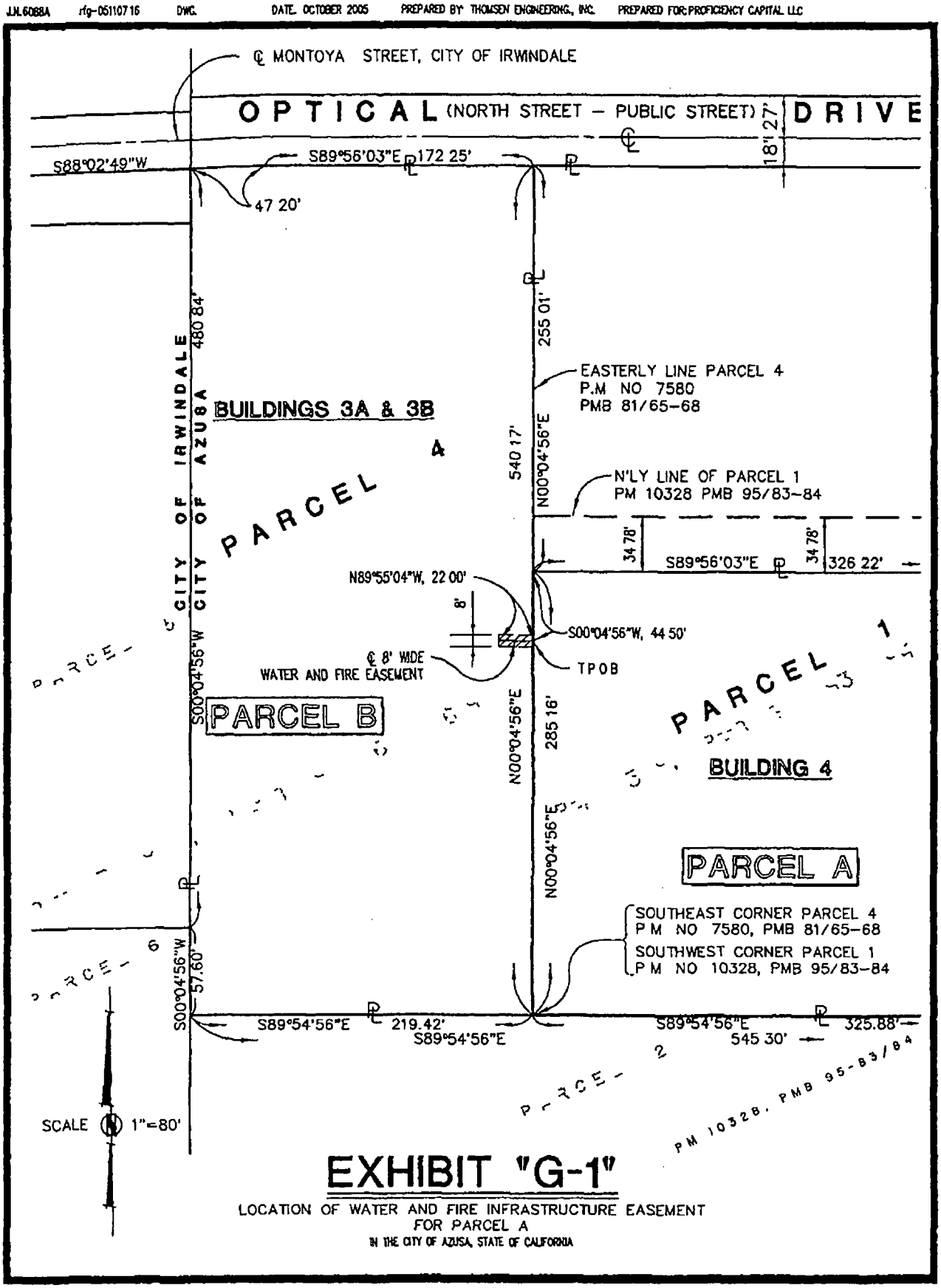


EXHIBIT "G-1"

LOCATION OF WATER AND FIRE INFRASTRUCTURE EASEMENT
FOR PARCEL A
IN THE CITY OF AZUSA, STATE OF CALIFORNIA

06 0068366

EXHIBIT "G-2"

LEGAL DESCRIPTION
OF
WATER AND FIRE INFRASTRUCTURE EASEMENT

A STRIP OF LAND, 8.00 FEET IN WIDTH, WITHIN PARCEL 4 OF PARCEL MAP NO 7580, IN THE CITY OF AZUSA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP FILED IN BOOK 81, PAGES 65 THROUGH 68 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, THE CENTERLINE OF WHICH IS DESCRIBED AS FOLLOWS·

BEGINNING AT A POINT IN THE EASTERLY LINE OF SAID PARCEL 4, ALSO BEING THE WESTERLY LINE OF PARCEL 1 OF PARCEL MAP NO 10328, IN SAID CITY, COUNTY AND STATE, AS PER MAP FILED IN BOOK 95, PAGES 83 AND 84 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DISTANT THEREON SOUTH 0^0 04' 56" WEST 34 78 FEET FROM THE NORTHWEST CORNER OF SAID PARCEL 1; THENCE ALONG THE COMMON BOUNDARY LINE OF SAID PARCELS 4 AND 1, SOUTH 0^0 04' 56" WEST 44.50 FEET TO THE TRUE POINT OF BEGINNING, THENCE NORTH 89^0 55' 04" WEST 22.00 FEET

J.N. 60888A rig-051107 16 DWG. DATE. OCTOBER 2005 PREPARED BY THOMSEN ENGINEERING, INC. PREPARED FOR: PROFICIENCY CAPITAL LLC

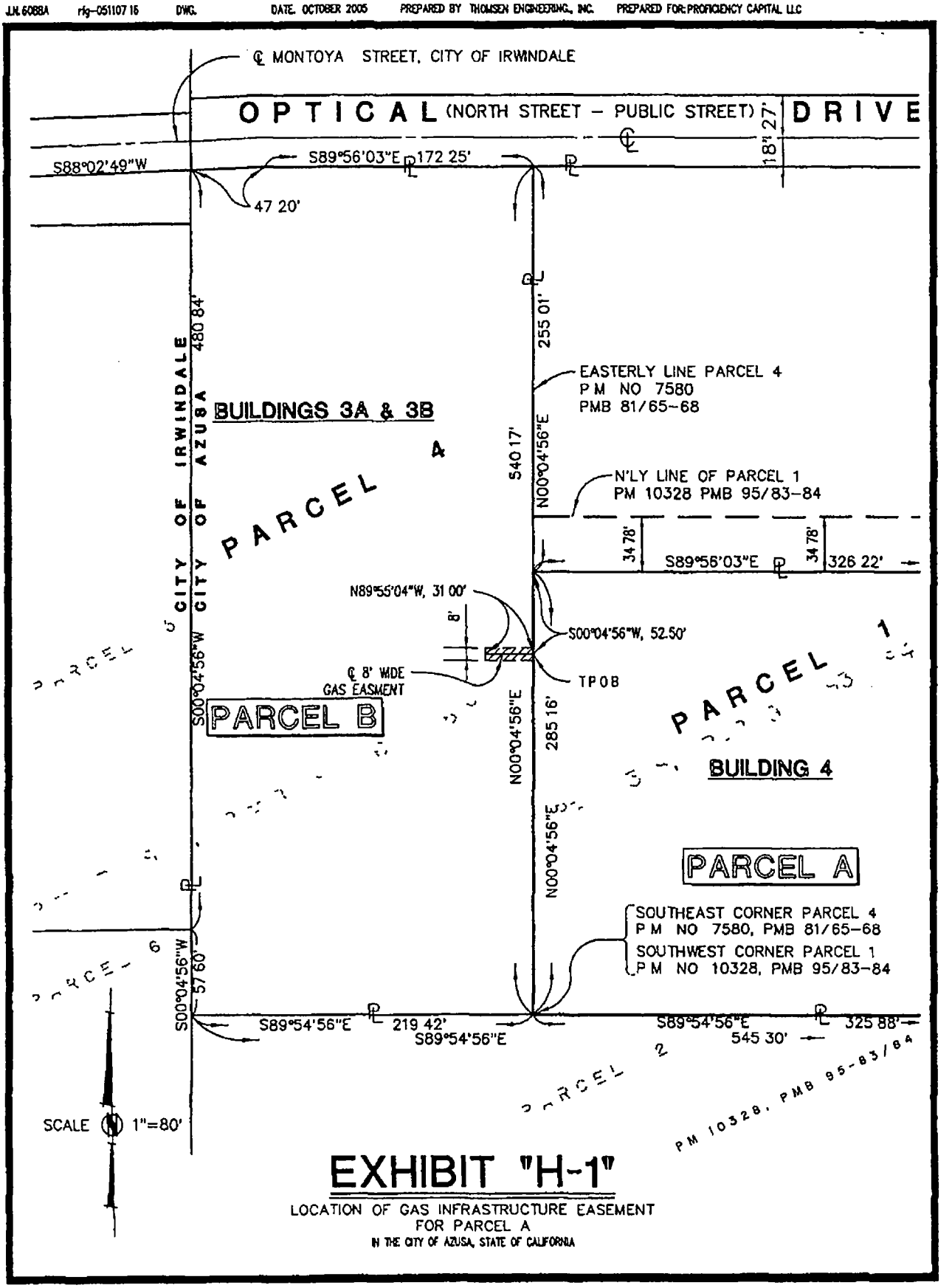


EXHIBIT "H-1"

LOCATION OF GAS INFRASTRUCTURE EASEMENT
FOR PARCEL A
IN THE CITY OF AZUSA, STATE OF CALIFORNIA

06 0068366

EXHIBIT "H-2"

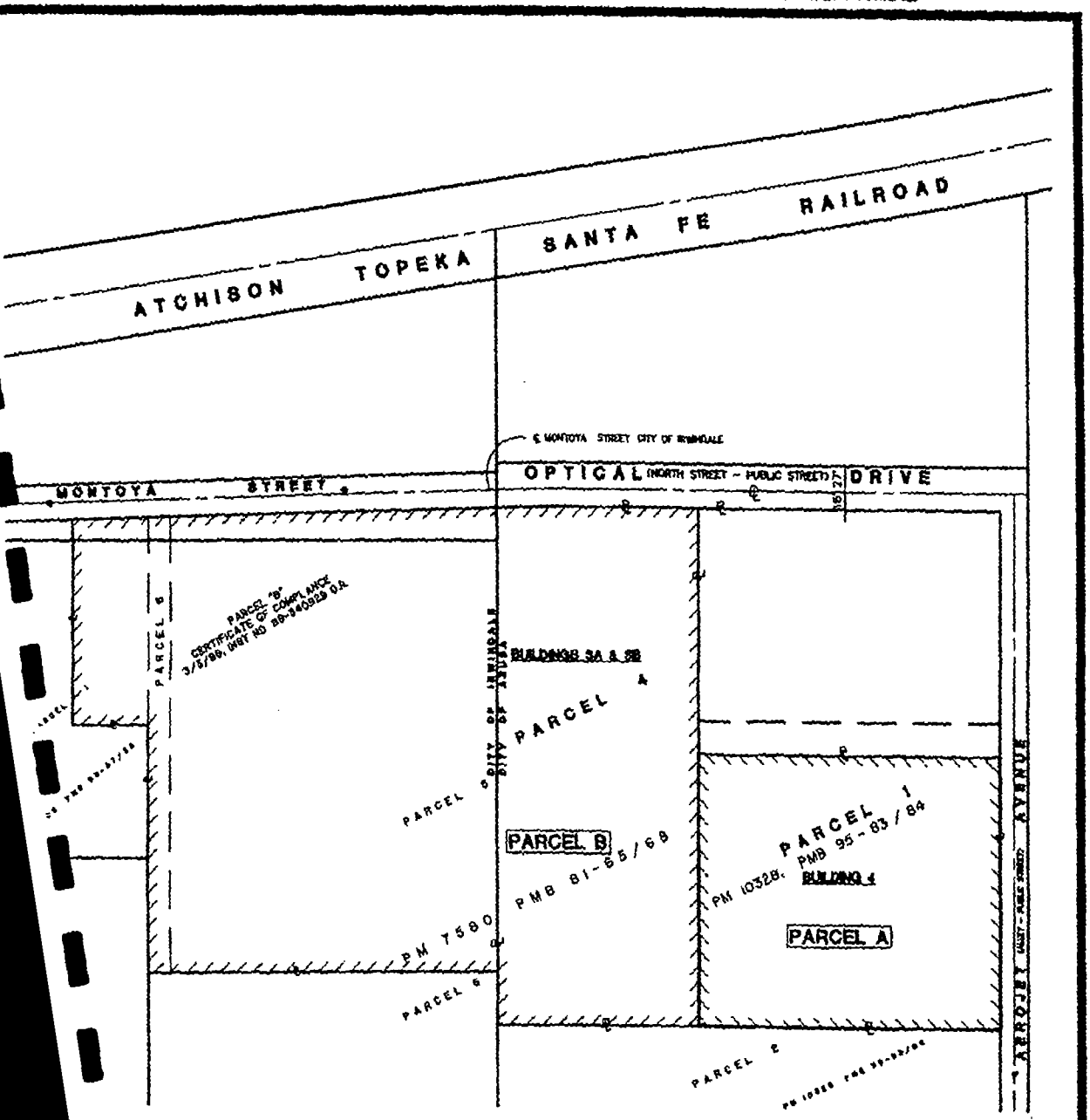
LEGAL DESCRIPTION
OF
GAS INFRASTRUCTURE EASEMENT

A STRIP OF LAND, 8 00 FEET IN WIDTH, WITHIN PARCEL 4 OF PARCEL MAP NO 7580, IN THE CITY OF AZUSA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP FILED IN BOOK 81, PAGES 65 THROUGH 68 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, THE CENTERLINE OF WHICH IS DESCRIBED AS FOLLOWS

BEGINNING AT A POINT IN THE EASTERLY LINE OF SAID PARCEL 4, ALSO BEING THE WESTERLY LINE OF PARCEL 1 OF PARCEL MAP NO 10328, IN SAID CITY, COUNTY AND STATE, AS PER MAP FILED IN BOOK 95, PAGES 83 AND 84 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DISTANT THEREON SOUTH 0^0 04' 56" WEST 34.78 FEET FROM THE NORTHWEST CORNER OF SAID PARCEL 1, THENCE ALONG THE COMMON BOUNDARY LINE OF SAID PARCELS 4 AND 1, SOUTH 0^0 04' 56" WEST 44.50 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 89^0 55' 04" WEST 31 00 FEET.

01/11/06

.6088A rfg-05110716 DWG DATE: OCTOBER 2005 PREPARED BY: THOMSEN ENGINEERING, INC. PREPARED FOR: PROFICIENCY CAPITAL LLC



1"=160'

EXHIBIT "I"

SITE PLAN

IN THE CITY OF AZUSA, STATE OF CALIFORNIA

J.N. 6088A rfg-051107 16 DWG. DATE. OCTOBER 2005 PREPARED BY THOMSEN ENGINEERING, INC. PREPARED FOR PROFICIENCY CAPITAL LLC

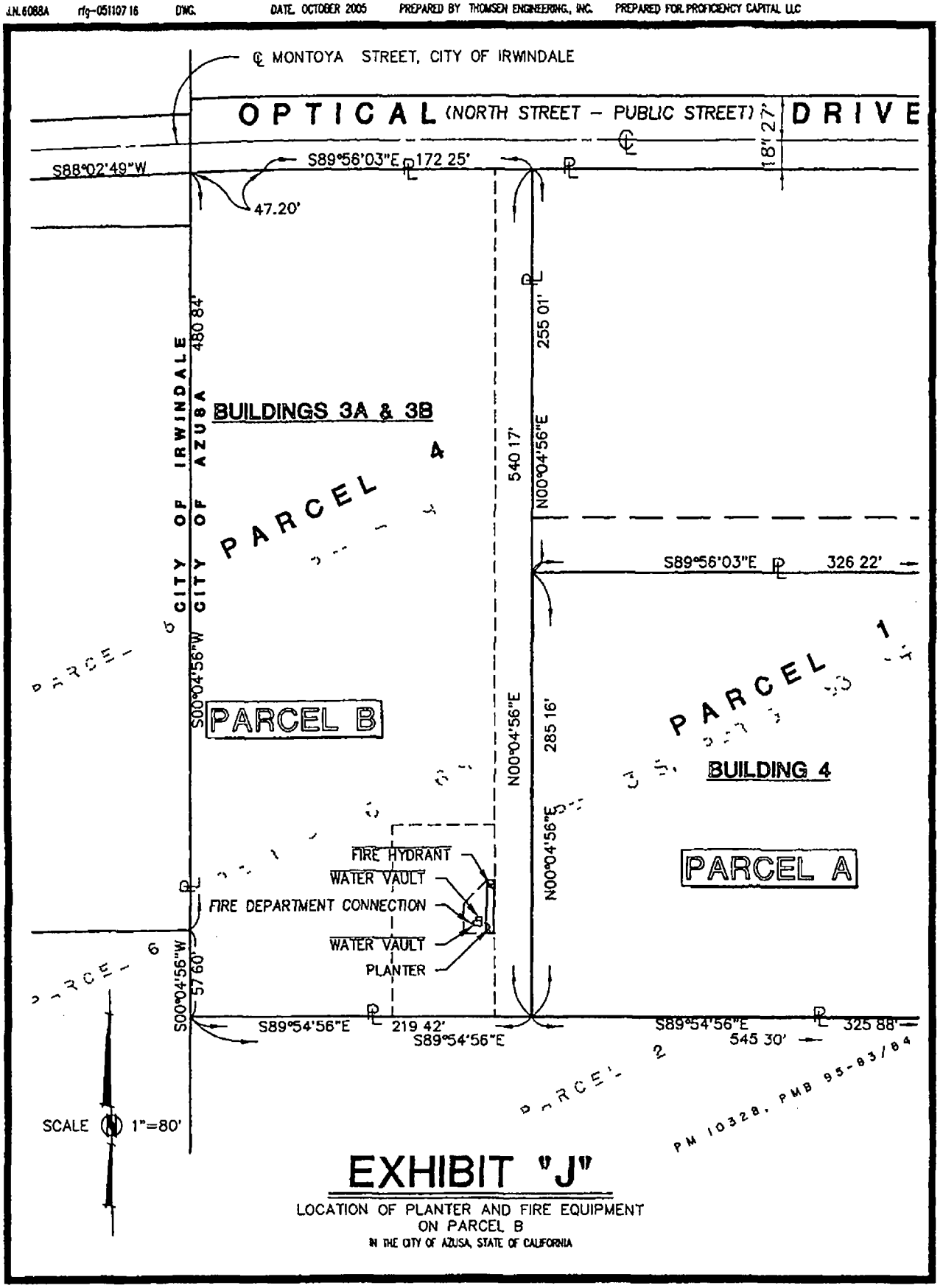


EXHIBIT "J"

LOCATION OF PLANTER AND FIRE EQUIPMENT
ON PARCEL B
IN THE CITY OF AZUSA, STATE OF CALIFORNIA